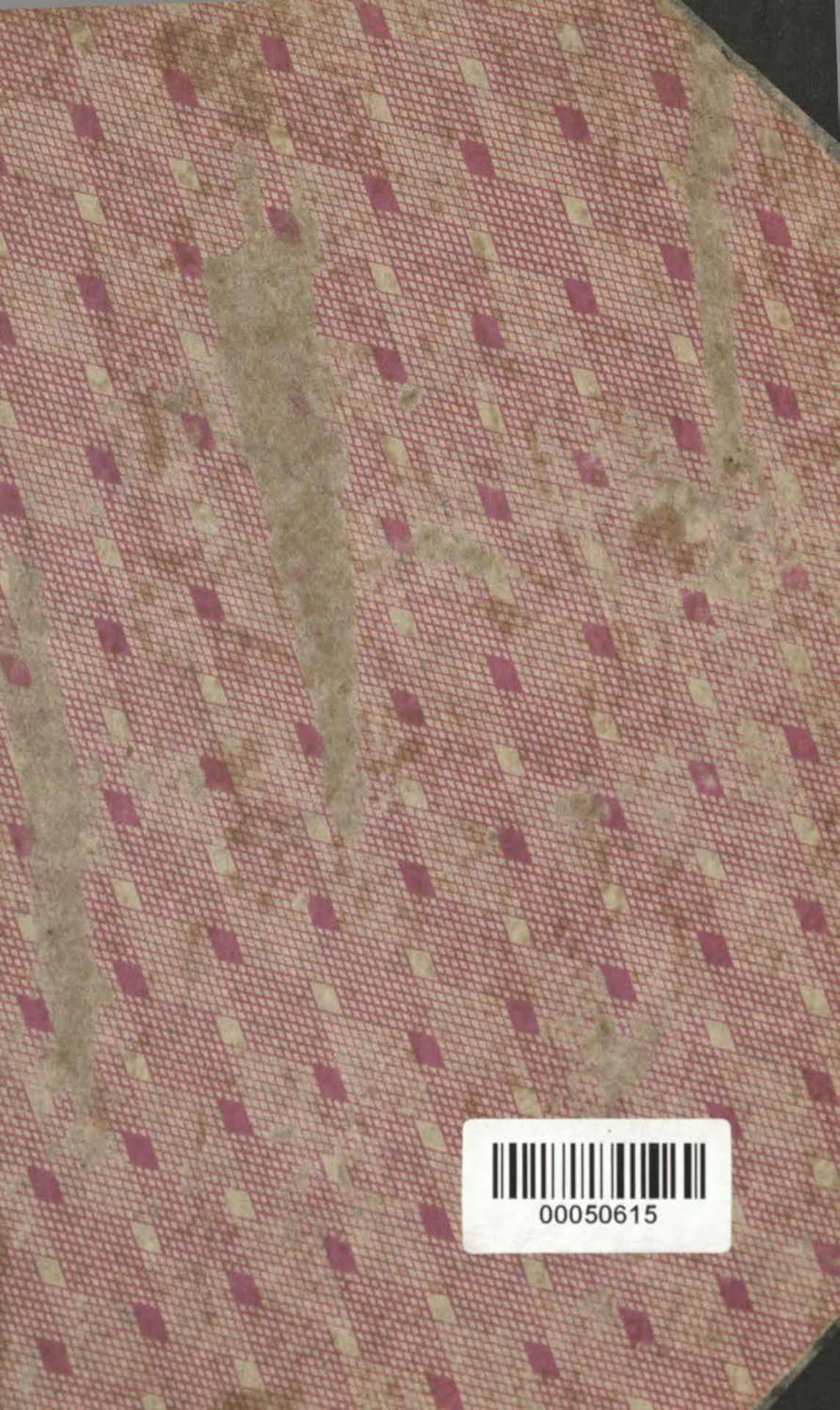

00050615

THE
ASIATIC SOCIETY OF BOMBAY
Town Hall, Bombay

Digitized with financial assistance from the
Government of Maharashtra
on 15 June, 2016

SUPPLEMENTAL VOLUMES

TO THE

WORKS

50615

OF

SIR WILLIAM JONES.

CONTAINING THE WHOLE OF THE

ASIATICK RESEARCHES

HITHERTO PUBLISHED,

EXCEPTING THOSE PAPERS ALREADY INSERTED IN HIS WORKS.

VOL. II.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

LONDON:

PRINTED FOR G. G. AND J. ROBINSON, PATERNOSTER-ROW;

AND R. H. EVANS, PALLMALL.

1801.

[*T. Davison, Lombard-street, White-friars.*]

00050615

CONTENTS OF VOL. II.

PAGE

On Egypt, and other Countries adjacent to the Cálí River, or Nile of Ethiopia - - - - - - - - 493
Remarks on the preceding Eſſay - - - - - 611
A Deſcription of the Plant Butea - - - - - 615
On the Manufacture of Indigo at Ambore - - - - 618
Extract of a Treatiſe on the Manufacture of Indigo - - - 620
Diſcourſe the Ninth, on the Origin and Families of Nations - - ib.
The Tenth Anniverſary Diſcourſe - - - - - - 623
On Three natural Productions of Sumatra - - - - ib.
On the Camphor of Sumatra - - - - - - ib.
On the Coral of Sumatra - - - - - - 625
On the Copper of Sumatra - - - - - - 631
On the Plant Morinda, and its Uſes - - - - - 633
On the Inhabitants of the Hills near Rájamahall - - - - 639
Additional Remarks on the Spikenard of the Ancients - - - 682
On the Dhaneſa, or Indian Buceros - - - - - 683
On the Iſlands Nancowry and Comarty - - - - - 690
On the Loris, or ſlow-paced Lemur - - - - - 693
Aſtronomical Obſervations made in the Upper Parts of Hinduſtàn, and on a Journey thence to Oujein - - - - - - - ib.
Queſtions and Remarks on the Aſtronomy of the Hindus - - 701
Diſcourſe the Eleventh, on the Philoſophy of the Aſiaticks - - 705
Concluſion - - - - - - - - - ib.
A Diſcourſe delivered at a Meeting of the Aſiatick Society - - ib.
Treatiſe on the Barometer - - - - - - 707
On the Duties of a faithful Hindu Widow - - - - 716
On the Traces of the Hindu Language and Literature extant amongſt the Malays - - - - - - - - - 722
A Catalogue of Indian Plants - - - - - - 727
Botanical Obſervations on ſelect Indian Plants - - - - ib.
A Deſcription of the Cuttub Minar - - - - - ib.

Aſtro-

PAGE

Aſtronomical Obſervations made on a Voyage to the Andaman and Nicobar Iſlands - - - - - - - - - 730

Aſtronomical Obſervations made on a Survey through the Carnatic and Myſore Country - - - - - - - - 733

Table of Latitudes and Longitudes of ſome principal places in India - 735

On ſome extraordinary Facts, Cuſtoms, and Practices of the Hindus - 739

Deſcription of the Yak of Tartary - - - - - 751

A Deſcription of the Joneſia - - - - - - 753

Aſtronomical Obſervations in Hinduſtan - - - - 756

A Diſſertation on Semiramis, &c. from the Hindu ſacred Book - - 757

On the Andaman Iſlands - - - - - - 772

On Barren Iſland, and its Volcano - - - - - 779

Extract from a Diary of a Journey over the Great Deſart, from Aleppo to Buſſora - - - - - - - - - 781

On the Tſhamie of the Hindus - - - - - 783

Some Account of the Cave in the Iſland of Elephanta - - - 785

An Account of the preſent State of Delhi - - - - 791

Hiſtorical Remarks on the Coaſt of Malabar, with ſome Deſcription of its Inhabitants - - - - - - - 809

An Account of two Fakeers, with their Portraits - - - 834

Enumeration of Indian Claſſes - - - - - 844

Some Account of the Sculptures at Mahabalipoorum, uſually called the Seven Pagodas - - - - - - - - 854

Account of the Hinduſtanee Horometry - - - - 863

On Indian Weights and Meaſures - - - - - 869

On the City of Pegue, and the Temple of Shoemadoo Praw - - 882

Deſcription of a Tree called by the Burmas, Launzan - - - 890

Specimen of the Language of the People inhabiting the Hills in the Vicinity of Bhaugulpore - - - - - - - 892

An Account of the Diſcovery of two Urns in the Vicinity of Benares - 895

Account of ſome ancient Inſcriptions - - - - - 897

Obſervations on the Alphabetical Syſtem of the Language of Awa and Rac'hain - - - - - - - - - 903

Some Account of the Elaſtic Gum-vine of Prince of Wales's Iſland, and of Experiments

CONTENTS.

PAGE

Experiments made on the milky Juice which it produces; with Hints reſpecting the uſeful Purpoſes to which it may be applied - - 912
A Botanical Deſcription of the Urceola Elaſtica or Caout Chouc Vine of Sumatra and Pulo-Penang - - - - - - 918
Some Account of the Aſtronomical Labours of Jayaſinha, Rajah of Ambhere, or Jayanagar - - - - - - 925
Deſcription of a Species of Meloë, an Inſect of the 1ſt or Coleopterous Order in the Linnean Syſtem, found in all Parts of Bengal, Behar, and Oúde; and poſſeſſing all the Properties of the Spaniſh bliſtering Fly or Meloë Veſicatorius - - - - - - - - 948
A Comparative Vocabulary of ſome of the Languages ſpoken in the Burma Empire - - - - - - - - 952
On the Chronology of the Hindus - - - - - 968
Remarks on the Names of the Cabirian Deities, and on ſome Words uſed in the Myſteries of Eleuſis - - - - - - 1005
Account of a Pagoda at Perwuttum - - - - - 1008
Remarks on the principal Æras and Dates of the Ancient Hindus - 1017
On the Religious Ceremonies of the Hindus, and of the Bráhmens eſpecially 1039
The Rudhirádhyáyă, or Sanguinary Chapter, tranſlated from the Calica Puran 1057
An Account of the Pearl Fiſhery in the Gulph of Manar in March and April 1797 - - - - - - - - 1070
Aſtronomical Obſervations made in the Upper Provinces of Hinduſtan - 1083

MISRA-STHAN
OR
GUPTA-STHAN.
Atavi & Arunya Forests
Bhav Atavi
Padma Pyramid
Bhava sthan
Arki or Suri sthan
MISRA-STHAN
The 3 Mountains or Rukma-vatra
Laya sthan
MISRA STHAN
Ashru
Lake
Atavi Devi's Pyramid
and FORESTS of
Thorny Trees
Carddama-sthan
FORESTS
Pyramid of Ashtara Devi
Abhi-matada &
Rupavauan-sthal
Gupta-sthan
CARDDAMA-STHALI
Asdwini Devi sthan
Pyramid of Trita Devi
TAPA

The Course of the
RIVER CALI
or
GREAT KRISHNA
through
Cusha-Dwip without,
and
Shankha-Dwip proper:
from the
PURANS.
SHANKH' ODADHI
Sea of Amagna
Sirbonis Lake
Misra-sthan
Ashru L.
SHYAMA MUKHAS
CUTILA KESAS
Cali R.
Carddama sthali
Barbara sthan
Gold Mountains
TAMOVANSAS
SHANKH ODADHI
Mocsha-sthan
Shankha Puri
Cusha-dwip. within ...... Green
Cusha-dwip. without ...... Yellow
Shankha-dwip. proper ...... Red
BARBARA-DESA
Santapan sthan
Atri
Subhavati - Sabha
Palli
YARAVA or YATUS
Suri rajya
NISHADHA
Mountains
Pari-bhadra
LI S
Padma-wan's
THAN
SHARMA - STHAN
Equator
RED SEA
ARUN ODADHI or
Scales
Rupa-vati or Rupauti
Rapta Metropolis
Mts. of Soma, or of the Moon
Lake of Amara or of the Gods
Mountains
Aenibi now Pemba
The two Menun I.
Myrriaca I
Harbour of Rapta
Raptum Pr.
The Cobanus or Ephorus
Prasum Pr. or E. Cape
Cerne orientalis

ASIATICK RESEARCHES.

THE LUNAR YEAR OF THE HINDUS.—*See the Works of Sir William Jones, Vol. I. p.* 375.

ON EGYPT, AND OTHER COUNTRIES ADJACENT TO THE CA'LI RIVER, OR NILE OF ETHIOPIA.

From the ancient BOOKS *of the* HINDUS.

By Lieut. FRANCIS WILFORD.

SECTION THE FIRST.

MY original deſign was to compoſe a diſſertation entirely *geographical* on *Egypt* and other countries bordering upon the *Nile*; but as the *Hindus* have no regular work on the ſubject of geography, or none at leaſt that ever came to my knowledge, I was under a neceſſity of extracting my materials from their hiſtorical poems, or, as they may be called more properly, their legendary tales; and in them I could not expect to meet with requiſite data for aſcertaining the relative ſituations of places: I was obliged, therefore, to ſtudy ſuch parts of their ancient books as contained geographical information; and to follow the track, real or imaginary, of their deities and heroes; comparing all their legends, with ſuch accounts of holy places in the regions of the weſt, as have been preſerved by the *Greek* mythologiſts, and endeavouring to prove the identity of places by the ſimilarity of *names*, and of

remarkable circumſtances; a laborious, though neceſſary operation, by which the progreſs of my work has been greatly retarded.

The mythology of the *Hindus* is often inconſiſtent and contradictory; and the ſame tale is related many different ways. Their phyſiology, aſtronomy, and hiſtory, are involved in allegories and enigmas, which cannot but ſeem extravagant and ridiculous; nor could any thing render them ſupportable, but a belief that moſt of them have a recondite meaning; though many of them had, perhaps, no firmer baſis than the heated imagination of deluded fanaticks, or of hypocrites intereſted in the worſhip of ſome particular deity. Should a key to their eighteen *Puránas* exiſt, it is more than probable that the wards of it would be too intricate or too ſtiff with the ruſt of time for any uſeful purpoſe; yet, as a near coincidence between *proper names* and *circumſtances*, could ſcarce have been accidental, ſome light might naturally be expected from the compariſon, which I reſolved to make. It is true, that an accurate knowledge of the old northern and weſtern mythology, of the *Coptick* and other dialects now uſed in countries adjacent to the *Nile*, of eaſtern languages, and above all, of *Sanſcrit*, may be thought eſſentially neceſſary for a work of this nature; and unfortunately I poſſeſs few of theſe advantages; yet, it will not, I hope, be conſidered as preſumptuous, if I preſent the *Aſiatick* Society with the reſult of my inquiries, deſiring them to believe that when I ſeem to make any poſitive aſſertion, I only declare my own humble opinion, but never mean to write in a dogmatical ſtyle, or to intimate an idea, that my own conviction ſhould preclude in any degree the full exerciſe of their judgment.

So ſtriking, in my apprehenſion, is the ſimilarity between ſeveral *Hindu* legends and numerous paſſages in Greek authors concerning the *Nile*, and the countries on its borders, that, in order to evince their identity, or at leaſt their affinity, little more is requiſite than barely to exhibit a comparative view of them. The *Hindus* have no ancient civil hiſtory, nor had the *Egyptians* any work purely hiſtorical; but there is abundant reaſon to believe, that the *Hindus* have preſerved the religious fables of *Egyyt*, though we cannot yet poſitively ſay by what means the *Bráhmens* acquired a knowledge of them. It appears, indeed, that a free communication formerly ſubſiſted between *Egypt* and *India*, ſince PTOLEMY acknowledges himſelf indebted for much information to many learned *Indians*, whom he had ſeen at *Alexandria*; and LUCIAN informs us, that pilgrims from *India* reſorted to *Hierapolis* in *Syria*; which place is called in the *Puránas*; at leaſt as it appears to me, *Mahábhágá*, or the ſtation of the Goddeſs *Dévì*, with that epithet; even to this day the *Hindus* occaſionally

occaſionally viſit, as I am aſſured, the two, *Jwálá-muc'hís*, or Springs of Naphtha, in *Cus'ha*-dwípa *within*, the firſt of which, dedicated to the ſame goddeſs with the epithet *Anáyásá*, is not far from the *Tigris*; and STRABO mentions a temple on that very ſpot, inſcribed to the goddeſs *Anaïas*.

The ſecond, or great, *jwálá-muc'hì*, or ſpring with a *flaming mouth*, is near *Báku*; from which place, I am told, ſome *Hindus* have attempted to viſit the *Sacred Iſlands* in the weſt; an account of which, from the *Puránas*, will (if the publick approve this eſſay) be the ſubject of a future work. A *Yógì*, now living, is ſaid to have advanced with his train of pilgrims, as far as *Moſcow*; but, though he was not ill uſed by the *Ruſſians*, they flocked in ſuch crowds to ſee him, that he was often obliged to interrupt his devotions, in order to ſatisfy their curioſity: he, therefore, choſe to return; and, indeed, he would probably have been expoſed to ſimilar inconvenience in the *Sacred Iſles*, without excepting *Breta-ſt'hán*, or the *place of religious duty*. This weſtern pilgrimage may account for a fact mentioned, I think, by CORNELIUS NEPOS (but, as printed books are ſcarce in this country, I ſpeak only from recollection), that certain *Indi*, or *Hindus*, were ſhipwrecked on the ſhores of the *Baltick*: many *Bráhmens*, indeed, aſſert, that a great intercourſe anciently ſubſiſted between *India* and countries in the weſt; and, as far as I have examined their ſacred books, to which they appeal as their evidence, I ſtrongly incline to believe their aſſertion.

The *Sanſcrit* books are, both in ſize and number, very conſiderable; and, as the legends relating to *Egypt* lie diſperſed in them without order or connexion, I have ſpared neither labour nor expence to collect them; but, though I have in that way done much, yet much remains to be done, and muſt be left, I fear, to others, who can better afford to make a collection ſo voluminous and expenſive: I had the happineſs to be ſtationed at *Banares*, the centre of *Hindu* learning; and, though my laborious duties left me very little time for literary purſuits, yet my appointment ſupplied me with means to defray the neceſſary charges, which I could not otherwiſe have afforded. To the friendſhip of Mr. DUNCAN I am deeply indebted: his encouragement and ſupport had a great effect on the *Bráhmens*; nor ſhould I, without his aſſiſtance, have met with that ſucceſs which has rewarded my labour. It will appear in the courſe of my eſſay, that I have derived infinite advantage from the Travels of Mr. BRUCE, to which I ſo frequently refer, that it was hardly poſſible to cite them conſtantly; and I make this general acknowledgment of my obligation to him: even the outline of the map prefixed to this diſſertation, is borrowed from

from his elaborate Chart. Thoſe, who may follow me in this path, will add conſiderably, no doubt, to the materials which I have amaſſed, and may poſſibly correct ſome errors, into which I may have fallen: happy ſhall I be to have led the way to diſcoveries, from which very important concluſions may be deduced.

The *Hindus*, I believe, have no work profeſſedly written on *popular* geography, that is, on the face of this globe according to the ſyſtem of their aſtronomers: they they have large charts of the univerſe according to the *Pauránicas*, with explanatory notes, and, perhaps, with treatiſes to elucidate their fables; and ſome of the *Puránas* contain liſts of countries, rivers, and mountains, with a general diviſion of the known world; which are alſo to be found in a few of their aſtronomical books. The *Baudhas*, or followers of JINA, have a ſmall tract on geography, entitled *Triloca derpan*, or *The Mirror of three Worlds*, which Mr. BURROW was ſo kind as to lend me: it is a moſt extravagant compoſition; and ſuch is the antipathy of the *Bráhmens* to the *Jainas*, that no explanation of it can be expected from them; but, ſhould I have leiſure and opportunity to examine it, the taſk may be attended with ſome advantage; though the proper names are in general changed and accommodated to the heterodox ſyſtem.

According to the orthodox *Hindus*, the globe is divided into two hemiſpheres, both called *Méru*; but the ſuperior hemiſphere is diſtinguiſhed by the name of *Suméru*, which implies beauty and excellence, in oppoſition to the lower hemiſphere, or *Cuméru*, which ſignifies the reverſe: by *Méru*, without any adjunct, they generally mean the higher, or *northern* hemiſphere, which they deſcribe with a profuſion of poetical imagery, as the ſeat of delights; while they repreſent *Cuméru* as the dreary habitation of demons, in ſome parts intenſely cold, and in others ſo hot, that the waters are continually boiling. In ſtrict propriety, *Méru* denotes the pole and the polar regions; but it is the celeſtial north pole, round which they place the gardens and metropolis of INDRA, while YAMA holds his court in the oppoſite polar circle, or the ſtation of *Aſuras*, who warred with the *Suras*, or Gods of the firmament. There is great reaſon to believe, that the old inhabitants of the ſouthern hemiſphere, among whom were the *Ethiops* and *Egyptians*, entertained a very different opinion of their own climate, and of courſe repreſented the ſummit of the northern hemiſphere as a region of horrors and miſery; we find accordingly, that the *Greeks*, who had imported moſt of their notions from *Egypt*, placed their hell under the north pole, and confined CRONOS to a cave in the frozen circle. In the *Puránas* we meet with ſtrong indications of a *terreſtrial paradiſe*, different from that

of

of the general *Hindu* ſyſtem, in the ſouthern parts of *Africa*; and this may be connected with the opinion adopted by the *Egyptians*, who maintained it againſt the *Scythians*, with great warmth (for the ancient inhabitants of the two hemiſpheres were perpetually wrangling on their comparative antiquity), that the *Ethiopians* were the oldeſt nation on earth.

Several diviſions of the old continent were made by different perſons at different times; and the modern *Bráhmens* have jumbled them all together: the moſt ancient of them is mentioned in the *Puránas*, entitled *Váyu*, and *Brahmánda*; where that continent is divided into ſeven *dwípas*, or countries with *water on two ſides*, ſo that, like *jazírah* in *Arabick*, they may ſignify either *iſlands* or *peninſulas*. They are ſaid to be wholly ſurrounded by a vaſt ocean, beyond which lie the region and mountains of *Attala*; whence moſt probably the *Greeks* derived their notion of the celebrated *Atlantis*, which, as it could not be found after having once been diſcovered, they conceived to have been deſtroyed by ſome ſhock of nature; an opinion formed in the true *Hindu* ſpirit; for the *Bráhmens* would rather ſuppoſe the whole economy of the univerſe diſturbed, than queſtion a ſingle fact related in their books of authority. The names of thoſe iſlands, or peninſulas, are *Jambu*, *Anga*, *Yama*, *Yamala* or *Malaya*, *Sanc'ha*, *Cuſ'ha*, and *Varáha*.

In the centre is JAMBU, or the inland part of *Aſia*; to the eaſt of it are *Anga*, *Yama*, and *Yamala*, reckoned from north to ſouth; to the weſt *Sanc'ha*, *Cuſha*, and *Varáha*, reckoned from ſouth to north: *Yama* and *Cuſha* are ſaid to be due eaſt and weſt, in reſpect of *India*; and this is indubitably proved by particular circumſtances.

Sanc'ha dwíp is placed in the ſouth-weſt, ſuppoſed to be connected with *Yamala*, and with it to embrace an immenſe inland ſea; between them the *Hindus* place *Lancà*, which they conceive extended to a conſiderable diſtance as far as the equator; ſo that *Sanc'ha* muſt be part of *Africa*, and *Yamala*, or *Malaya*; the peninſula of *Malacca*, with the countries adjacent. This notion of a vaſt inland ſea PTOLEMY ſeems to have borrowed from the *Hindus*, whom he ſaw at *Alexandria*; for, before his time, there was no ſuch idea among the *Greeks*: he calls it *Hippados*; a word, which ſeems derived from *Abdhi*, a general name for the ſea in the language of the *Bráhmens*. We may collect from a variety of circumſtances, that *Cuſha dwíp* extends from the ſhores of the *Mediterranean*, and the mouths of the *Nile*, to *Serhind*, on the borders of *India*.

In a ſubſequent diviſion of the globe, intended to ſpecify ſome diſtant countries with

with more particular exactneſs, ſix *dwípas* are added; *Placſha*, *Sálmali*, *Craunch'a*, *Sáca*, *Puſhcara*, and a ſecond *Cuſha*, called *Cuſha* dwípa *without*, in oppoſition to the former, which is ſaid to be *within*; a diſtinction uſed by the *Bráhmens*, and countenanced in the *Puránas*, though not poſitively expreſſed in them: the ſix new *dwípas* are ſuppoſed to be contained within thoſe before mentioned; and the *Puránas* differ widely in their accounts of them, while the geography of the former diviſion is uniform.

Six of the ancient diviſions are by ſome called *upadwípas*, becauſe they are joined to the large *dwípa*, named *Jambu*; and their names are uſually omitted in the new enumeration. Thus *Cáſha*-dwíp *within* is included in *Jambu-dwíp*, and compriſes three out of ſeven *c'handas*, or ſections of *Bhárataverſha*. Another geographical arrangement is alluded to by the poet CALIDA'S, who ſays, that "RAGHU *erected* "*pillars of conqueſt in each of the* eighteen *dwípas*," meaning, ſay the *Pandits*, *ſeven* principal, and *eleven* ſubordinate, iſles or peninſulas: *upa*, the ſame word originally with *hypo* and *ſub*, always implies *inferiority*; as *upavéda*, a work derived from the *Véda* itſelf; *upapátaca*, a crime in a lower degree; *upadherma*, an inferior duty; but great confuſion has ariſen from an improper uſe of the words *upadwípa* and *dwípa*.

Cuſha-dwípa *without* is *Abyſſinia* and *Ethiopia*; and the *Bráhmens* account plauſibly enough for its name, by aſſerting, that the deſcendants of CUSHA, being obliged to leave their native country, from them called *Cuſha*-dwípa *within*, migrated into *Sanc'ha'dwíp*, and gave to their new ſettlement the name of their anceſtor; for, though it be commonly ſaid, that the *dwípa* was denominated from the graſs *Cuſ'ha*, of the genus named *Poa*, by LINNÆUS, yet it is acknowledged, that the graſs itſelf derived both its appellation and ſanctity from CUSHA, the progenitor of a great *Indian* family. Some ſay that it grew on the *valmíca*, or hill formed by *Termites* or white ants, round the body of CUSHA himſelf, or of CAUSHICA his ſon, who was performing his *tapaſyá*, or act of auſtere devotion; but the ſtory of the ant-hill is by others told of the firſt *Hindu* poet, thence named VA'LMI'CA.

The countries, which I am going to deſcribe, lie in *Sanc'ha-dwíp*, according to the ancient diviſion; but, according to the new, partly in *Cuſha*-dwíp *without*, and partly in *Sanc'ha*-dwíp *proper*; and they are ſometimes named *Cálitata*, or banks of the *Cáli*, becauſe they are ſituated on both ſides of that river, or the *Nile* of *Ethiopia*. By *Cálitata* we are to underſtand *Ethiopia*, *Nubia*, and *Egypt*: it is even to this day called by the *Bráhmens* the country of *Dévatás*; and the *Greek* Mytho-

logiſt

logiſt aſſerted, that the Gods were born on the banks of the *Nile*. That celebrated and holy river takes its riſe from the *Lake of the Gods*, thence named *Amara*, or *Déva*, *Saróvera*, in the *region* of SHARMA, or *Sharma-ſt'hán*, between the mountains of *Ajágara* and *Sítánta*, which ſeem part of *Sóma-giri*, or the mountains of the Moon, the country round the lake being called *Chándri-ſt'-hán*, or *Moonland*: thence the *Cáli* flows into the marſhes of the *Padma-van*, and through the *Niſhadha* mountains, into the land of *Barbara*, whence it paſſes through the mountains of *Hémacúta* in *Sanc'ha*-dwíp *proper*, there entering the foreſts of *Tapas*, or *Thebais*, it runs into *Cant'aca-déſa* or *Mis'hra-ſt'han*, and through the woods, emphatically named *Arań'ya* and *Atavì* into *Sanc'hábdhi*, or our *Mediterranean*. From the country of *Puſhpaverſha* it receives the *Nandá* or *Nile* of *Abyſſinia*; the *Aſt himatì*, or ſmaller *Criſhńá*, which is the *Tacazzè* or little *Abay*; and the *Sanc'ha-nágá*, or *Mareb*. The principal tribes or nations who lived on its banks, were, beſides the ſavage *Pulindas*; 1 The *'Shármicas*, or *'Shámicas*; 2. The Shepherds, called *Palli*; 3. The *Sanc'háyanas* or *Troglodytes*, named alſo *Sánc'háyani*; 4. The *Cut'ila-céſas*, or *Cut'lálacas*; 5. The *'Syáma-muc'has*; 6. The *Dánavas*; and, 7. The *Yavanas*: we find in the ſame region a country denominated *Strí-rájya*, becauſe it was governed by none but Queens.

The river *Cáli* took its name from the goddeſs MAHA'-CA'LI, ſuppoſed to have made her firſt appearance on its banks, in the character of *Rájarájéſwarì*, called alſo ISA'NI and ISI; and, in the character of SATI', ſhe was transformed into the river itſelf: the word *Cála* ſignifies black, and, from the root *cal*, it means alſo *devouring*, whence it is applied to *Time*; and, from both ſenſes in the feminine, to the Goddeſs in her *deſtructive* capacity; an interpretation adopted, as we ſhall ſee hereafter, in the *Puránas*. In her character of MAHA'CA'LI ſhe has many other epithets, all implying different ſhades of *black* or *dark azure*; and, in the *Cálicápurán*, they are all aſcribed to the river; they are *Cáli* or *Cálá*, *Nilá*, *Aſitá*, *Shyámà*, or *'Shyámalà*, *Mécháca*, *Anjanábhà*, *Criſhńà*. The ſame river is alſo called *Náhuſhì*, from the celebrated warrior and conqueror, uſually entitled DE'VA-NAHUSHA, and in the ſpoken dialects, DEO-NAUSH: he is the DIONYSIUS, I believe, of the ancient *Europeans*.

By the *Greeks*, *Romans*, and *Hebrews*, the *Nile* (which is clearly a *Sanſcrit* word) was known alſo by the following names: *Melas*, *Melo*, *Ægyptos*, *Sikhor*, or *Sihor*, *Nous*, or *Nús*, *Aëtos*, *Siris*, *Oceanus*, *Triton*, *Potamos*. The word NOUS * is ma-

* HOR. APOLLO περὶ Νείλου ἀγαβάσεως. B. I.

nifeſtly

nifeſtly corrupted from *Nahuſh*, or NAUSH; *Aëtos* from king I'T or *Ait*, an *avántara*, or inferior incarnation, of MAHA'DEVA; *Ægyptos* from *'Agupta*, or *on all ſides guarded*; and *Triton*, probably, from *Trituni*, as the *Ethiops*, having no ſuch letter as *p*, and generally ſubſtituting *t* in its room, would have pronounced *Tripuni*, which is a common *Indian* corruption of *Trivéní*.

The *Sanſcrit* word *Trivéní* properly means with *three plaited locks*; but it is always applied to the confluence of *three ſacred rivers*, or to the *branching* of a river *into three ſtreams*: ÆTHICUS, in his Coſmography, inſtead of ſaying, that the *Hydaſpes* flows from a place named *Tréveni*, uſes the phraſe *three hairs*, or *three locks of hair*, which is a literal verſion of the *Sanſcrit*. Now the *Cálì* conſiſts of *three ſacred ſtreams*; the *Nílà* or *Nile* of *Ethiopia*, the *Nandà*, or *Nile* of *Abyſſinia*, and the little *Chriſhná* or *Aſt'himatì*. The junction of the great *Chriſhná* with the *Nandà* was held peculiarly ſacred, as it appears from the following couplets in the *At'harvavéda*, which are cited in the original as a proof of their authenticity:

Bhadrá bhagavatì Chriſhná *grahanacſhatra málinì,*
Samvésanì ſanyámanì, viſwaſya jagató niſá;
Agnichaura nipátéſhu ſerva graha nivárané,
Dacſhá bhagavatí dévì Nandayá *yatra ſangatá:*
Serva pápa praſamanì bhadré páramaſì mahí,
Sitá ſitaſamáyógát param yá na nivertaté.

That is, word for word:

"CRĬSHNA' the proſperous, the imperial, the giver of delight, the reſtrainer *of* "*evil*, decked, *like* the night of the whole world, with a chaplet of planets and ſtars; "the ſovereign goddeſs tranſcendently beneficial in calamities from fire and robbers, "in checking *the bad influence of* all planets, where ſhe is united with the NANDA': "ſhe it is, who expiates all ſin. O propitious *river*, *thou art* the mighty *goddeſs*, "who cauſes us to attain the end *of mortal births*, who, by the conjunction of black "with white *waters*, never ceaſes to produce the higheſt good."

Potamos, or the *river* in THEOPHRASTUS, is commonly ſuppoſed to be only an emphatical appellative denoting ſuperiority; but I cannot help thinking it derived from the *Sanſcrit* word *Padma*, which I have heard pronounced *Padam*, and even *Patam*, in the vulgar dialects: it is the *Nymphœa* of LINNÆUS, and, moſt certainly, the *Lotos* of the *Nile*, on the pericarp of which a Frog is repreſented ſitting

in

in an *Egyptian* emblem engraved by MONTFAUCON *. That river and the marſhes near it abound with that lovely and uſeful plant; and we ſhall ſee preſently, that *Cálì* herſelf is believed to have made its beautiful flower her favourite place of reſidence, in the character of *Padmá-dévi*, or the *Goddeſs in the Lotos*. Moſt of the great rivers on which the *Nymphæa* floats in abundance, have the epithet of *Padmavati* or *Padmemati*; and the very word *Potamos*, uſed as an appellative for a large river, may be thence derived; at leaſt the common etymology of that word is far leſs probable.

We before obſerved, that the ſource of the NI'LA' is in the extenſive region of SHARMA, near the mountains of *Sóma*, in the maſculine, or *Dei Luni*; and that it iſſues from the lake of the Gods, in the country of *Chandrì*, in the feminine, or *Deæ-Lunæ*: to the word *ſaróvara*, or *conſiderable lake*, is prefixed in compoſition either *Amara*, *Sura*, *or Déva*; and the compound *Déva-ſaróvara* is generally pronounced, in common ſpeech, *Deo-ſaraur*. It lies between two ranges of hills; one to the eaſt, called *Ajágara*, or *not wakeful*; and the other to the weſt, named *Sítánta*, or *end of cold*, which implies that it may have ſnow on its ſummit, but in a very ſmall quantity.

Sharma-St'han, called alſo the mountainous region of *Ajágara*, is ſaid in the *Brahmánda-purán* to be 300 *Yojans*, or 1476.3 *Britiſh* miles, in length, and 100 in breadth, or 492.12 miles. The mountains were named *Ajágara*, or of thoſe, *who watch not*, in oppoſition to the mountains of *Abyſſinia*, which were inhabited by *Nijácharas*, or *night-rovers*; a numerous race of *Yacſhas*, but not of the moſt excellent claſs, who uſed to ſleep in the day-time and revel all night: Mr. BRUCE ſpeaks of a *Kowas* or *watching dog*, who was worſhipped in the hills of *Abyſſinia*.

The mountains of SOMA, or the Moon, are ſo well known to geographers, that no farther deſcription of them can be required; but it may be proper to remark, that PTOLEMY places them too far to the South, and M. D'ANVILLE too far to the North, as it will hereafter be ſhown: according to Father LOBO, the natives now call them *Toroa*. The *Ajágara* mountains, which run parallel to the eaſtern ſhores of *Africa*, have at preſent the name of *Lupata*, or the *backbone of the world*: thoſe of *Sítánta* are the range which lies weſt of the Lake *Zambre*, or *Zaire*, words not improbably corrupted from *Amara* and *Sura*. This *Lake of the Gods* is believed to be a vaſt reſervoir, which, through viſible or hidden channels, ſupplies all the rivers of the country. The *Hindus*, for mythological purpoſes, are fond of ſuppoſing

* 2 BRYANT. *Anc. Mythol.* 334. *pl.* 6.

 ſubterranean

ſubterranean communications between lakes and rivers; and the *Greeks* had ſimilar notions. Mr. BRUCE, from the report of the natives, has placed a reſervoir of this kind at the ſource of the *White* River *, which (though the two epithets have oppoſite ſenſes) appear to be the *Cáli* of the *Puráns:* it may have been called *white* from the *Cumuda*, which abounds in its waters; at leaſt the mountains near it are thence named *Cumudádri*, and the *Cumuda* is a water-flower ſacred to the Moon, which VAN RHEEDE has exhibited, and which ſeems to be either a *Menianthes, or a Hydrophyllum*, or a ſmall white *Nymphœa*. The lake of the *Amará*, or Immortals, was not wholly unknown to the *Greeks* and *Romans*, but they could not exactly tell where it was ſituated; and we are not much better acquainted with its true † ſituation: it is called *Nilides* by JUBA; *Niliducus* and *Nuſaptis*, in the *Peutingerian* Table. It is the *Oriental Marſh* of PTOLEMY, and was not far from *Rapta*, now *Quiloa*; for that well-informed geographer mentions a certain DIOGENES, who went on a trading voyage to *India*, and on his return was overtaken near the Cape, now called *Gardeſan*, by a violent ſtorm from the N.N.E. which carried him to the vicinity of *Rapta*, where the natives aſſured him, that the *marſhes* or *lakes*, whence the *Nile* iſſued, were at no conſiderable diſtance.

The old *Egyptians* themſelves, like the preſent *Hindus* (who are apt, indeed, to place reſervoirs for water, of different magnitudes, on the high grounds of moſt countries), had a notion of a receptacle, which ſupplied the *Nile* and other great *African* rivers; for the Secretary of MINERVA's temple informed HERODOTUS, that the holy river proceeded from deep lakes between the mountains of *Crophi* and *Mophi*; that part of its waters took their courſe toward the north, and the reſt to the ſouth through *Ethiopia:* but either the ſecretary himſelf was not perfectly maſter of the ſubject, or the hiſtorian miſunderſtood him; for HERODOTUS conceived, that thoſe lakes were cloſe to *Syene* ‡, and, as he had been there himſelf without ſeeing any thing of the kind, he looked upon the whole account as a fiction. It is not improbable, however, that the lakes were ſaid by the ſecretary to be near the country of *Azania* or *Azan*, which was miſtaken for *Syene*, in *Egypt* called *Uſwán* or *Aſwán*.

From this idea of a general reſervoir the ancients concluded, that the *Niger* alſo had its origin from the ſame lakes with the *Nile*; but JUBA acknowledged, that the channels run underground for the ſpace of twenty days' march, or about 300 miles ‖:

* III. Bruce, 719.

† Plin. *l.* 5. *c.* 9.

‡ 2 Herod. *c.* 28.

‖ Plin. *l.* 5. *c.* 9.

in

in conformity to the relation of DIOGENES, the marſhy lakes were ſaid by JUBA to lie near the Ocean; but he aſſerted poſitively, that the *Nile* did not immediately riſe from them; adding, that it flowed through ſubterraneous paſſages for the ſpace of ſeveral days' journey, and on its reappearance, formed another marſhy lake of ſtill greater extent, in the land of the *Maſſæſyli*, who were perhaps the *Mahábháſyaśílas* of the *Puráns*. The ſecond lake correſponds in ſituation with the extenſive marſhes from which the *Naliru'labyad* of the *Arabs*, or *the White River*, has its ſource, according to Mr. BRUCE, who places the lake about the 3d or 4th degree of north latitude: it is named *Cowir* in the maps; and is noticed by the *Nubian* geographers.

The word *Nuſaptis*, which is applied, as before mentioned, to the firſt lake, may be derived from *Nis'ápati*, or the *Lord of Night*, a title of the God LUNUS: the whole country, indeed, with its mountains and moſt of its rivers, had appellations relating to the moon; and we find in it ſeveral ſmaller rivers, which we cannot now aſcertain, with the names of *Rajanì*, or night, *Cuhú*, or the day after the conjunction, *Anumatì*, or that after the oppoſition; *Racà*, or the full orb of the moon; and *Siníválì*, or firſt viſible creſcent. The inhabitants of that region are by PTOLEMY called *Maſtitæ*; by JUBA, as we before obſerved, *Maſſæſyli*; and, in the Maps, *Maſſi* or *Maſſagueios:* in all thoſe denominations the leading root *Maſſa*, whatever be its meaning, is clearly diſtinguiſhable; and, as there were people with a ſimilar name in *Mauritania*, PLINY and his followers make JUBA alledge, that the lakes juſt mentioned were in that country; but it is hardly poſſible, that JUBA could have made ſuch a miſtake with reſpect to a country ſo near his own; nor can we refrain from obſerving, that PLINY was an indifferent geographer, and that his extracts and quotations are in general very inaccurate.

The ſecond lake, or marſh, appears to be the *Padmavana* of the *Sanſcrit* legends; and that word implies, that it abounded with the *Nymphæa*; but it was propably the *Padma*, diſtinguiſhed by the epithet of *Cóti-patra*, or with *ten millions of petals*, which I conceive to be the *Enſete* of Mr. BRUCE, who mentions it as growing there in the greateſt abundance: it is true, that the *Enſete* has no botanical affinity with the *Nymphæa*, but the *Hindus* were ſuperficial botaniſts, and gave the ſame appellation to plants of different claſſes, as the word *Lotos*, indeed, was applied by the *Greeks* to the common *Padma*, or water lily, and to the celebrated fruit of the *Lotophagi*, which had no relation to it. The uſual number of petals on the *Nymphæa Lotus* is *ſixteen*; but ſome have only *eight:* the character of the genus, indeed,

indeed, is to have *numerous petals*, and the *Sanſcrit* epithet *Sahaſra-patra*, or *thouſand-petalled*, is applied in dictionaries to the common *Padma*; but nothing could have juſtified ſuch an epithet as *Cóti-patra*. On ſome *Egyptian* monuments we find ISIS reclined among the leaves of a plant, ſuppoſed to be the *Cadalí*, or *Mauza*, which has been changed into *Muſa*, by LINNÆUS; but Mr. BRUCE has exploded that error, and ſhewn that the plant was no other than his *Enſete*: the *Indian* Goddeſs, indeed, ſits, in the character of YACSHINÍ-*dévì*, on the leaves of the *Mauza*; but in that form, which was an *avántara*, or lower incarnation, ſhe never has the majeſty or the title of PADMÁ. It is expreſsly ſaid in the *Puránas*, that, on the banks of the *Calí* river, PADMÁ reſides in the *Cóti-patra*, a flower unknown in *India*, and conſequently ill deſcribed in the *Sanſcrit* books: where PLINY mentions the Lotos of the *Nile*, he uſes a phraſe very applicable to the *Enſete*: "foliis densâ congerie ſtipatis;" and, though he adds a few particulars, not agreeing with Mr. BRUCE's full deſcription of that plant, yet PLINY, being a careleſs writer and an inaccurate botaniſt, might have jumbled together the properties of two different flowers.

The before-named country of *Chandri-ſt'hán* was thus denominated from a fable in the *Puráns*: The God *Chandra*, or LUNUS, having loſt his ſex in *India*, became *Chandrí*, or LUNA, who concealed herſelf in the mountains near the lakes, of which we have been treating: ſhe was there viſited by the Sun, and by him had a numerous progeny called *Pulindas*, from *pulina*, an *iſlet* or *ſandbank*, who dwelt near the rivers that ran from thoſe mountains, and acknowledged no ruling powers but the Sun and the Moon.

Sharma-St'hán, of which we cannot exactly diſtinguiſh the boundaries, but which included Ethiopia *above* Egypt, as it is generally called, with part of *Abyſſinia* and *Azan*, received its name from SHARMA, of whom we ſhall preſently ſpeak: his deſcendants, being obliged to leave *Egypt*, retired to the mountains of *Ajágar*, and ſettled near the lake of the Gods. Many learned *Bráhmens* are of opinion, that by the Children of SHARMA we muſt underſtand that race of *Dévatás*, who were forced to emigrate from *Egypt* during the reigns of SANI and RA'HU, or SATURN and TYPHON: they are ſaid to have been a quiet and blameleſs people, and to have ſubſiſted by hunting wild elephants, of which they ſold or bartered the teeth, and even lived on the fleſh. They built the town of *Rúpavatí*, or the *beautiful*; which the *Greeks* called *Rapta*, and thence gave the name of *Raptii* or *Rapſii* to its inhabitants: it is generally ſuppoſed, that only one town in that country was named *Rapta*; but STEPHANUS of *Byzantium* poſitively aſſerts, that

there

there were two of the name *; one, the capital of *Ethiopia*, and another a ſmall town or village, conſiſting of huts inhabited by ſea-faring men, near a harbour at the mouth of the river *Ruptus*. The former is the *Rúpavatì* of the *Puránas*, in which it is declared to have ſtood near the *Calì*: we cannot perfectly aſcertain its poſition; but it was, I think, ſituated near the ſouthern extremity of the divine Lake, now called *Zambre* or *Maravi*; for PTOLEMY places the *Raptii* about the ſources of the *Nile*; that is, *thirteen or fourteen* degrees from the city, whence, as he ſuppoſes, that people was named. No further deſcription can juſtly be expected of a country ſo little known; but we may obſerve that the *Nubian* geographer mentions a mountain near the Lake of the Gods, called the Mount of the *Painted Temple*; becauſe, probably, it contained hieroglyphicks cut on ſtone and painted, ſuch as are to be ſeen at this day in ſome parts of *Egypt*: he adds, that, on the bank of the *ſecond* lake, was the ſtatue of a certain *Maſha*, ſuppoſed to be his body itſelf petrified, as a puniſhment for his crimes.

I. It is related in the *Padma-puran*, that SATYAVRATA, whoſe miraculous preſervation from a general deluge is told at length in the *Mátſya*, had three ſons, the eldeſt of whom was named JYA'PETI, or *Lord of the Earth*; the others were C'HARMA and SHARMA, which laſt words are, in the vulgar dialects, uſually pronounced *C'ham* and *Sham*; as we frequently hear *Kiſhn* for CRISHNA. The royal patriarch, for ſuch is his character in the *Purans*, was particularly fond of JYA'PETI, to whom he gave all the regions to the north of *Himálaya*, or the *Snowy Mountains*, which extend from ſea to ſea, and of which *Caucaſus* is a part: to *Sharma* he allotted the countries to the ſouth of thoſe mountains; but he curſed *C'harma*; becauſe, when the old monarch was accidentally inebriated with a ſtrong liquor made of fermented rice, *C'harma* laughed; and it was in conſequence of his father's imprecation, that he became a ſlave to the ſlaves of his brothers.

The Children of SHARMA travelled a long time, until they arrived at the bank of the *Nili* or *Cali*; and a *Brahmen* informs me (but the original paſſage from the *Purán* is not yet in my poſſeſſion) that their journy began after the building of the *Padmá-manaira*, which appears to be the tower of *Babel*, on the banks of the river *Cumudvatí*, which can be no other than the *Euphrates*. On their arrival in *Egypt* they found the country peopled by evil beings and by a few impure tribes of men, who had no fixed habitation; their leader, therefore, in order to propitiate the tu-

* STEPH. Byzant, on the word *Rapta*.

telary

telary divinity of that region, ſat on the bank of the *Nile*, performing acts of auſtere devotion, and praiſing PADMA'-*dévì*, or the Goddeſs reſiding on the Lotos. PADMA' at laſt appeared to him, and commanded him to erect a pyramid, in honour of her, on the very ſpot where he then ſtood; the aſſociates began the work, and raiſed a pyramid of earth two *crós* long, one broad and one high, in which the Goddeſs of the Lotos reſided; and from her it was called *Padmá-mandira* and *Padma-mat'ha*. By *mandira* is meant a *temple*, or *palace*, and by *mat'ha*, or *mer'ha*, a *college*, or *habitation of ſtudents*; for the Goddeſs herſelf inſtructed SHARMA and his family in the moſt uſeful arts, and taught them the *Yacſha-lipi*, or *writing* of the *Yacſhas*, a race of ſuperior beings, among whom CUVE'RA was the chief. It does not clearly appear on what occaſion the *Sharmicas* left their firſt ſettlement, which had ſo auſpicious a beginning; but it has before been intimated, that they probably retreated to *Ajágara*, in the reigns of SANI and RAHU, at which time, according to the *Puráns*, the *Dévatás*, among whom the *Sharmicas* are reckoned, *were compelled to ſeek refuge in the mountains:* a ſimilar flight of the *Dévatás* is, however, ſaid to have been cauſed by the invaſion of DEVA-NAHUSH, or DIONYSIUS.

The *Padmá-mandìr* ſeems to be the town of *Byblos*, in *Egypt*, now called *Babel*; or rather that of *Bábel*, from which original name the *Greeks* made *Byblos:* it ſtood on the canal, which led from the *Balbitine* branch of the *Nile* to the *Phatmetic*; a canal, which is pretty well delineated in the *Peutingerian* table; and it appears, that the moſt ſouthern *Iſeum* of that table is the ſame with the *Byblos* of the *Greeks*. Since this mound or pyramid was raiſed but a ſhort time after that on the *Cumudvatì*, and by a part of the ſame builders, and ſince both have the ſame name in *Sanſcrit*, whence it ſhould ſeem, that both were inſcribed to the ſame divinity, we can hardly fail to conclude, that the *Padmá-mandiras* were the two *Babels*; the firſt on the *Euphrates*, the ſecond on the *Nile*. The old place of worſhip at *Byblos* was afterwards much neglected, being ſcarce mentioned by ancient authors: STEPHANUS of *Byzantium* ſays *it was very ſtrong*; and it was there, according to THUCYDIDES, and to the *Perſicks* of CTESIAS quoted by PHOTIUS, that INARUS, king of *Lybia*, with his *Athenian* auxiliaries and the *Egyptians*, who were attached to him, ſuſtained a ſiege of a year and a half againſt the whole *Perſian* army, under MEGABYZUS: but, as it ſtood in low marſhy ground, it probably owed its chief ſtrength to the vaſt mound of earth mentioned in the *Puránas*, the dimenſions of which are, however (as it is uſual in poetical deſcriptions), much exaggerated. One of three grand branches of the *Nile*, in the vicinity of *Padmá-mat'h*, is called *Pathmeti* by PTOLEMY,

LEMY, and *Phatmi* by DIODORUS the *Sicilian:* both ſeem derived from the *Sanſcrit* corrupted; for *Padma* is in many *Indian* dialects pronounced *Padm*, or *Podm*, and in ſome *Patma*. To the ſame root may be referred the appellation of the nome *Phthembuthi*, or *Phthemmuthi*, as it is alſo written; for the *Padmá-mat'h* was in the nome *Proſopitis*, which once made a part, as it evidently appears, of the nome *Phthembuthi*, though it was afterwards conſidered as a ſeparate diſtrict, in conſequence of a new diviſion: *Proſopitis*, moſt certainly, is derived from a *Greek* word, and alludes to the ſummit of the *Delta*, ſeen on a paſſage down the *Nile* from the city of *Memphis*; but *Potamitis*, which was applied to *Egypt* itſelf, can hardly mean any more, than that the country lies on both ſides of *a large river*, which would not be a ſufficient diſcrimination to juſtify that common etymology; and we have already hazarded a conjecture that *Potamos*, as a proper name of the *Nile*, relates to the holy and beautiful *Padma*.

Of the *Yacſha* letters before mentioned, I ſhould wiſh to give a particular account; but the ſubject is extremely obſcure; CRINITUS aſſerts, that the *Egyptian* letters were invented by ISIS; and ISIS, on the Lotos, was no other, moſt certainly, than PADMA'-DE'VI', whom the *Puránas* mention as the inſtructreſs of the *Sharmicas*, in the *Yacſha* mode of writing. According to the *Bráhmens*, there are written characters of three principal ſorts, the *Dévanágarì*, the *Paiſáchì*, and the *Yácſhì*; but they are only variations of the ſame original elements: the *Dévanágarì* characters are uſed in the northern, the *Paiſáchì*, in the ſouthern parts, of *India*, and the *Yacſhì*, it is ſaid, in *Butan* or in *Thibet*. The *Pandits* conſider the *Dévanágarì* as the moſt ancient of the three; but the beauty and exquiſite perfection of them renders this very doubtful; eſpecially as ATRI, whom they ſuppoſe to have received them from the Gods, lived a long time, as they ſay, in the countries bordering on the *Cáli*, before he repaired to the *Dévánica* mountains near *Cábul*, and there built the town of *Dévanagar*, from which his ſyſtem of letters had the name of *Dévanágarì*. As to the *Páiſácha* characters, they are ſaid to have been invented by the *Palis*, or ſhepherds, who carried them into *Ethiopia:* the *Yacſha* writing I had once imagined to be a ſyſtem of hieroglyphicks; but had no authority from the *Puránas* to ſupport that opinion, and I dropped it on better information; eſpecially as the *Brálmens* appear to have no idea of hieroglyphicks, at leaſt according to our conception of them.

The *Sharmicas*, we have obſerved, rank among the *Dévatás* or demi-gods; and they ſeem to have a place among the *Yacſhas* of the *Puráns*, whom we find in the northern

northern mountains of *India*, as well as in *Ethiopia*: the country in which they finally ſettled, and which bore the name of their anceſtors, was in *Sanc'ha dwíp*, and ſeems to compriſe all that ſubdiviſion of it, which, in the *Bhágavat*, and other books, is called *Cuſha*-dwíp *without*.

Several other tribes, from *India* or *Perſia*, ſettled afterwards in the land of SHARMA: the firſt and moſt powerful of them were the *Pális*, or *Shepherds*, of whom the *Puránas* give the following account:

II. IRS'HU, ſurnamed *Pingácſha*, the ſon of UGRA, lived in *India* to the ſouth-weſt of *Cáſhi*, near the *Naravindhyà* river, which flowed, as its name implies, from the *Vindhya* mountains: the place of his reſidence to the ſouth of thoſe hills was named *Palli*, a word now ſignifying a large town and its diſtrict, or *Páli*, which may be derived from *Pála*, a herdſman or ſhepherd. He was a prince mighty and warlike, though very religious; but his brother TA'RA'C'HYA, who reigned over the *Vindhyan* mountaineers, was impious and malignant; and the whole country was infeſted by his people, whom he ſupported in all their enormities: the good king always protected the pilgrims to *Cáſi* or *Varánes* in their paſſage over the hills, and ſupplied them with neceſſaries for their journey; which gave ſo great offence to his brother, that he waged war againſt IRS'HU, overpowered him, and obliged him to leave his kingdom; but MAHA'DE'VA, proceeds the legend, aſſiſted the fugitive prince and the faithful *Pális*, who accompanied him; conducting them to the banks of the *Cáli*, in *Sanc'ha-dwíp*, where they found the *Shármicas*, and ſettled among them. In that country they built the temple and town *Puny-avatì*, or *Punya-nagarì*; words implying *holineſs* and *purity*, which it imparts, ſay the *Hindus*, to zealous pilgrims: it is believed at this day to ſtand near the *Cálì*, on the low hills of *Mandara*, which are ſaid, in the *Puránas*, to conſiſt of *red earth*; and on thoſe hills the *Pallis*, under their virtuous leader, are ſuppoſed to live, like the *Gandharvas*, on the ſummit of *Himálaya*, in the lawful enjoyment of pleaſures; rich, innocent, and happy, though intermixed with ſome *Mléch'has*, or people who *ſpeak a barbarous dialect*, and with ſome of a fair complexion. The low hills of *Mandara* include the tract called *Meroë* or *Merhoë*, by the *Greeks*; in the centre of which is a place named *Mandara* in the JESUITS' Map, and *Mandera* by Mr. BRUCE, who ſays, that of old it was the reſidence of the ſhepherds, or *Palli*, kings: in that part of the country the hills conſiſt of *red earth*; and their name *Mandara* is a derivative from *manda*, which, among other ſenſes, means *ſharp-pointed*, from *man*, or *water*, and *dri*, whence *dara* to *pierce*; ſo that *Mandara-parvata* ſignifies a mountain *dividing*

dividing the waters and forcing them to run different ways; an etymology confirmed by Mr. BRUCE in his deſcription of *Meroë*, where he accounts for its being called an iſland. The compound *Punya-nagarì*, or *City of Virtue*, ſeems to imply both a ſeat of government and a principal temple with a college of prieſts: it was, therefore, the celebrated city of *Meroë*; a word which may be derived from MERHA (*vidyárt'-hinám gr̆ham*, the *manſion of ſtudents*, as it is explained in the dictionaries) or from MRARA, of whom we ſhall preſently ſpeak.

To the king of the *Pallis*, named alſo *Palli* from thoſe whom he governed, MAHA'DE'VA gave the title of NAIRR̆ITA, having appointed him to guard the *nairr̆iti*, or ſouth-weſt; and, though he was a *Piſácha* by birth, or naturally bloody-minded, yet he was rewarded for his good diſpoſition, and is worſhipped in *India* to this day, among the eight *Dic-pálas*, or guardians of as many quarters, who conſtantly watch, on their elephants, for their ſecurity of *Cáſì*, and other holy places in *Jambudwípa*: but the abode of his deſcendants is declared in the *Puránas*, to be ſtill on the banks of the *Cálì* or *Nilá*. One of his deſcendants was LUBDHACA, of whom an account will be given in a ſubſequent ſection; and from LUBDHACA deſcended the unfortunate LI'NA'SU, not the bard HERIDATTA, who had alſo that name, and who will be mentioned hereafter more particularly, but a prince whoſe tragical adventures are told in the *Rájaníti*, and whoſe death was lamented annually by the people of *Egypt*: all his misfortunes aroſe from the incontinence of his wife YO'GA, BHRASTA' or YOGACASHTA; and his ſon MAHA'SURA, having by miſtake committed inceſt with her, put himſelf to death, when he diſcovered his crime, leaving iſſue by his lawful wife. May we not reaſonably conjecture, that LUBDHACA was the LABDACUS, LINA'SU, the LAIUS, and YO'GACASHTA the JOCASTA of the *Greeks*? the word *Yadupa*, from which ŒDIPUS may be derived, ſignifies King of the *Yadu* family, and might have been a title of the unhappy MAHA'SURA.

This account of the *Pallis* has been extracted from two of the eighteen *Puránas*, entitled SCANDA, or the God of War, and BRAHMA'NDA, or the Mundane Egg. We muſt not omit, that they are ſaid to have carried from *India* not only the *At'harvá-véda*, which they had a right to poſſeſs, but even the *three* others, which they acquired clandeſtinely, ſo that the *four* books of ancient *Indian* ſcripture once exiſted in *Egypt*; and it is remarkable, that the books of *Egyptian* ſcience were exactly *four*, called the books of *Harmonia* or HERMES, which are ſuppoſed to have contained ſubjects of the higheſt antiquity *. NONNUS mentions the firſt of them

* See 2 Bryant, 150.

as believed to be coeval with the world; and the *Brâhmens* aſſert, that their three firſt *Védas* exiſted before the creation.

The *Pallis*, remaining in *India*, have different names; thoſe who dwell to the ſouth and ſouth-weſt of *Benáres*, are, in the vulgar dialects, called *Pális* and *Bhìls*; in the mountains to the north-eaſt of that city, they are in *Sanſcrit* named *Cirátas*; and, toward the *Indus*, as I am informed, a tribe of them has the appellation of *Harita*: they are now conſidered as outcaſts, yet are acknowledged to have poſſeſſed a dominion in ancient times from the *Indus* to the eaſtern limits of *Bengal*, and even as far as *Siam*. Their anceſtors are deſcribed as a moſt ingenious people, virtuous, brave, and religious; attached particularly to the worſhip of MAHA'DE'VA', under the ſymbol of the *Linga* or *Phallus*; fond of commerce, art, ſcience; and uſing the *Paiſáchì* letters, which they invented. They were ſupplanted by the *Rájaputras*; and their country, before named *Páliſt'hán*, was afterwards called *Rájaputaná* in the vulgar dialect of their conquerors. The hiſtory of the *Pallis* cannot fail to be intereſting, eſpecially as it will be found much connected with that of *Europe*; and I hope ſoon to be ſupplied with materials for a fuller account of them: even their miſerable remains in *India* muſt excite compaſſion, when we conſider how great they once were, and from what height they fell through the intolerant zeal and ſuperſtition of their neighbours. Their features are peculiar; and their language different, but perhaps not radically, from that of other *Hindus*: their villages are ſtill called *Palli*; many places, named *Palita*, or, more commonly, *Bhilata*, were denominated from them; and in general *Palli* means a village or town of *ſhepherds* or *herdſmen*. The city of IRSHU, to the ſouth of the *Vindhya* mountains, was emphatically ſtyled *Palli*; and, to imply its diſtinguiſhed eminence, *Srí-palli*: it appears to have been ſituated on or near the ſpot, where *Bopál* now ſtands, and to be the *Sari-palla* of PTOLEMY, which was called *Palibothræ* by the *Greeks*, and, more correctly in the *Peutingerian* table, *Palipotra*; for the whole tribe are named *Paliputras* in the ſacred books of the *Hindus*, and were indubitably the *Palibothri* of the ancients, who, according to PLINY, governed the whole country from the *Indus* to the mouth of the *Ganges*; but the *Greeks* have confounded them and their capital city with the *Baliputras*, whoſe chief town, denominated from them, had alſo the name of *Rájagriha*, ſince changed into *Rájamahall*: as it was in the *mandala*, or *circle*, of the *Baliputras*, it is improperly called by PTOLEMY, who had heard that expreſſion from travellers, *Palibothræ* of the *Mandalas*.

We have ſaid, that I'RSHU had the ſurname of *Pingácſha*, or *yellow-eyed*, but, in ſome

ſome dictionaries, he is named *Pingáſá*, or *yellow as fine gold*; and in the track of his emigration from *India*, we meet with indications of that epithet: the *Turkiſh* geographers conſider the ſea-coaſt of *Yemen*, ſays Prince KANTEMIR, as part of *India*, calling its inhabitants yellow *Indians*; the province of *Ghilán*, ſays TEXEIRA, has alſo the appellation of *Hindu'l Aſfar*, or Yellow *India*; and the *Caſpian* itſelf is by the *Turks* called the Yellow Sea *. This appears to be the origin of the *Panchæan* tribes, in *Arabia*, *Egypt*, and *Ethiopia*, whoſe native country was called *Panchæa*; and the iſlands near it, *Panchæan:* though DIODORUS of *Sicily*, attempting to give a deſcription from EUHEMERUS of *Panchæa* or *Pingáſa*, has confined it to an inconſiderable iſland near *Dwáracà*, yet it was really *India* itſelf, as his deſcription ſufficiently ſhows; and the place, which he names *Oceanida*, is no other than old *Ságar* at the mouth of the *Ganges*; the northern mountain, which he ſpeaks of, is *Méru*; and the three towns near it are deſcribed in the *Puráns* with almoſt the ſame appellations.

ORUS, the ſhepherd, mentioned in ancient accounts of *Egypt*, but of whom few particulars are left on record, was, moſt probably, IRSHU the *Palli*; whoſe deſcendants, the *Pingácſhas*, appear to have been the *Phenician* ſhepherds, who once eſtabliſhed a government on the banks of the *Nile:* the *Phenicians* firſt made their appearance on the ſhores of the *Erythrean*, or *Red* Sea, by which we muſt underſtand the whole *Indian* ocean between *Africk* and the *Malay* coaſts; and the *Puránas* thus repreſent it, when they deſcribe the waters of the *Arunódadhi* as *reddened* by the reflection of ſolar beams from the ſouthern ſide of mount *Suméru*, which abounds with gems of that colour: ſomething of this kind is hinted by PLINY †. It is aſſerted by ſome (and from ſeveral circumſtances it appears moſt probable), that the firſt ſettlements of the *Phenicians* were on the *Perſian* gulph, which is part of the *Erythrean* ſea: JUSTIN ſays, that, *having been obliged to leave their native country* (which ſeems from the context to have been very far eaſtward), *they firſt built near the* Aſſyrian *lake*, which is the *Perſian* gulph; and we find an extenſive diſtrict, named *Palyſine*, to the eaſt of the *Euphrates* and *Tigris*. The word *Palyſine* ſeems derived from *Palliſthán*, the ſeat of the *Pallis*, or ſhepherds ‡; the *Samaritans*, who before lived in that country, ſeem to have been a remnant of the *Pallis*, who kept themſelves diſtinct from their neighbours, and probably removed for that reaſon to the *Palyſine* on the ſhore of the *Mediterranean*; but after their

* *Muller*, p. 106. † Lib 6. cap. 23. ‡ Lib. 6. cap. 70.

arrival

arrival in that country, they wiſhed to ingratiate themſelves with the *Jews* and *Phenicians*, and, for that purpoſe, claimed affinity with them; alleging, ſometimes, that they were deſcended from JACOB, and at other times, that they ſprang from PINKHAS; a word pronounced alſo PHINEAS, and ſuppoſed (but, I think, leſs probably), to mean the ſon of AARON. Certainly, the *Jews* looked upon the *Samaritans* as a tribe of *Philiſtines*; for mount *Garizim* was called *Palitan* and *Pelian*. TREMELLIUS, in the wiſdom of the ſon of SIRACH, writes *Paliſchthæa*, but in the *Greek* we find *the* Philiſtines, *who reſide on the mount of* Samaria *; but let us return to *Paleſtine* in *Aſſyria*.

Whether the poſterity of *Pingácſha*, or the yellow *Hindus*, divided themſelves into two bodies, one of which paſſed directly into *Phenice*, and the other went, along the *Arabian* ſhores, to *Abyſſinia*, or whether the whole nation firſt entered the ſouthern parts of *Arabia*, then croſſed over to *Africk*, and ſettled in the countries adjacent to the *Nile*, I cannot determine; but we have ſtrong reaſons to believe, that ſome, or all of them, remained a conſiderable time on the coaſt of *Yemen*: the *Panchean* tribes in that country were conſidered as Indians: many names of places in it, which ancient geographers mention, are clearly *Sanſcrit*, and moſt of thoſe names are found at preſent in *India*. The famed *Rhadamanthus*, to whom HOMER gives the epithet *yellow*, and his brother MINOS, were, it ſeems, of *Phenician* extraction: they are ſaid to have reigned in *Arabia*, and were, probably, *Pallis* deſcended from PINGA'CSHA, who, as we have obſerved, were named alſo *Cirátas*, whence the weſtern iſland in which MINOS, or his progeny, ſettled, might have derived its appellations of *Curetis* † and *Crete*. In ſcripture we find the *Peleti* and *Kerethi* named as having ſettled in *Paleſtine*; but the ſecond name was pronounced *Krethi* by the *Greek* interpreters, as it is by ſeveral modern commentators: hence we meet with *Krita*, a diſtrict of *Paleſtine*, and at *Gaza* with a JUPITER *Cretæus*, who ſeems to be the *Critéſwara* of the *Hindus*. In the ſpoken *Indian* dialects, *Palita* is uſed for *Palli*, a herdſman; and the *Egyptians* had the ſame word; for their prieſts told HERODOTUS, that their country had once been invaded by PHILITIUS, the ſhepherd, who uſed to drive his cattle along the *Nile*, and afterwards built the pyramids ‡. The *Phyllitæ* of PTOLEMY, who are called *Bulloits* by Captain R. COVERT, had

* Chap. 50. v. 26.

† PLIN. lib. 4. cap. 12. *Curetis* was named, according to ANAXIMANDER, from the *Curetes*, under their king PHILISTIDES.

‡ HEROD. B. 2. 148.

their

their name from *Bhilata*, which in *India* means a place inhabited by *Pallis* or *Bhils*: the ancient ſhepherds made ſo conſpicuous a figure in *Egypt*, that it is needleſs to expatiate on their hiſtory; and for an account of the ſhepherds in or near *Abyſſinia*, I refer to the Travels of Mr. BRUCE. Let us return to *Meroë*.

The writers of the *Purânas*, and of other books eſteemed ſacred by the *Hindus* were far from wiſhing to point out the origin of mere cities, how diſtinguiſhed ſoever in civil tranſactions: their object was to account for the foundation of temples and places of pilgrimage; but it often happened, that ſeveral places of worſhip were in different periods erected at a ſmall diſtance from each other; and, as the number of inhabitants increaſed round each temple, an immenſe town was at length formed out of many detached parts; though we are never told in the *Purânas*, whether thoſe conſecrated edifices were contiguous or far aſunder. This happened to *Memphis*, as we ſhall preſently ſhow; and it ſeems to have been the caſe with *Punyavatí*, and with *Merha* or *Mŕĭra*: thoſe words are written *Met'ha* and *Mŕĭdá*, but there is ſomething ſo peculiar in the true ſound of the *Nágarì* letters, *ṭa*, *ṭ'ha*, *ḍa*, *ḍ'ha*, that they are generally pronounced, eſpecially when they are placed between two vowels, like a palatial *ra*; the vowel *ŕĭ* has likewiſe a great peculiarity, and, as we before obſerved on the word *Kiſhn* for *Crĭſhna*, is frequently changed: now the whole *Troglodytica* was named *Midoë* or *Mirhoe*; and he who ſhall attentively conſider the paſſage in PLINY, where the towns of *Midoë* and *Aſal* are mentioned, will perceive, that they can be no other than *Meroë* and *Æſar*. This interchange of *ḍa* and *ra* ſo exactly reſembles the *Sanſcrit*, that the name of *Meroë* ſeems more probably derived from *Mŕĭda*, than from *Metha*, or a *college of prieſts*; eſpecially as the *Pallis* were almoſt excluſively attached to the worſhip of MRĬRA, or MAHA'-DE'VA: a place in *Pegu*, called *Mŕĭra* from the ſame deity, has in PTOLEMY the name of *Mareura*, and is now pronounced *Mero* by the natives.

According to the *Purans*, the reſidence of King I'T (who formerly ruled over *Egypt* and *Ethiopia*), was on the banks of the *Cálí* river, and had the name of *Mŕĭra* or *Mŕĭra-ṭ'hán*, becauſe its principal temple was dedicated to MRĬRA and his conſort MRINA'NI', or PA'RVATI': now, when we read in STEPHANUS of *Byzantium* that the fort of *Meruſium* near *Syracuſe* was believed by ſome to have taken its name from *Meroë* in *Ethiopia*, we muſt underſtand, that it was named from a place of worſhip ſacred to MRĬRA, the chief *Ethiopian* divinity; and the ſame author informs us, that *Meroëſſa Diana*, or MRIRE'SWARI' DE'VI', who is repreſented with a *creſcent* on her forehead, was adored at *Moruſium* in *Sicily*. We may conclude, that

that her huſband MRĬRE'SWARA, was the God of *Meroë*, called a *barbarous deity* by the *Greeks*, who, being themſelves unable to articulate his name, inſiſted that it was concealed by his prieſts. It has been imagined, that CAMBYSES gave the name of his ſiſter and wife to *Meroë*; but it is very dubious, in my opinion, whether he penetrated ſo far as that city: in all events he could have made but a ſhort ſtay in the diſtrict, where, as he was abhorred by the *Egyptians* and *Ethiops*, it is improbable, that a name impoſed by him, could have been current among them; and whatever might have been his firſt intention as to the name of his wife, yet, when he had killed her, and undergone a ſeries of dreadful misfortunes in thoſe regions, it is moſt probable, that he gave himſelf no further trouble about her or the country.

In the book entitled *Saiva-ratnácara*, we have the following ſtory of King I'T, who is ſuppoſed to have been MRĬRA himſelf in a human ſhape, and to have died at *Meroë*, where he long reigned.

On the banks of the *Nílá*, there had been long conteſts between the *Dévatás* and the *Daityas*: but the latter tribe having prevailed, their king and leader SANC'HA'SURA, who reſided in the ocean, made frequent incurſions into the country, advancing uſually in the night and retiring before day to his ſubmarine palace: thus he deſtroyed or made captive many excellent princes, whoſe territories and people were between two fires; for, while SANC'HA'SURA was ravaging one ſide of the continent, CRACACHA, king of *Crauncha-dwíp*, uſed to deſolate the other; both armies conſiſting of ſavages and cannibals, who when they met fought together with brutal ferocity, and thus changed the moſt fertile of regions into a barren deſert. In this diſtreſs, the few natives who ſurvived raiſed their hands and hearts to BHAGAVA'N, and exclaimed: 'Let him that can deliver us from theſe diſaſters be our King,' uſing the word I'T, which re-echoed through the whole country. At that inſtant aroſe a violent ſtorm, and the waters of the *Cálí* were ſtrangely agitated, when there appeared from the waves of the river a man, afterwards called I'T, at the head of a numerous army, ſaying *abhayam*, or *there is no fear*; and, on his appearance, the *Daityas* deſcended into *Pátála*, the demon SANC'HA'SURA plunged into the ocean, and the ſavage legions preſerved themſelves by precipitate flight. The King I'T, a ſubordinate incarnation of MRĬRA, re-eſtabliſhed peace and proſperity through all *Sanc'hadwípa*, through *Barbara-déſa*, *Miſr'a-ſt'hán*, and *Arva-ſt'hán*, or *Arabia*; the tribes of *Cut'íla-céſas* and *Háſyasílas* returned to their former habitation, and juſtice prevailed through the whole extent of his dominions: the place, near which

he

he ſprang from the middle of the *Nílá*, is named, *Íta*, or Íт-*ſt'hán*, and the capital of his empire, *Mŕĭra* or *Mŕĭrá-ſt'hán*. His deſcendants are called *Ait*, in the derivative form, and their country, *Aitéya*: the king himſelf is generally denominated AIT, and was thus erroneouſly named by my *Pandit* and his friends, till after a long ſearch they found the paſſage, in which his adventure is recorded. The *Greeks*, in whoſe language *aëtos* means an Eagle, were very ready, as uſual, to find an etymology for *Ait*: they admit, however, that the *Nile* was firſt called *Aëtos*, after a dreadful ſwelling of the river, which greatly alarmed the *Ethiopians* *; and this is conformable to what we read in the *Saiva-ratnácara*. At the time of that prodigious intumeſcence in the river, it is ſaid, that PROMETHEUS was king of *Egypt*; but PROMETHEUS appears to be no other than PRAMAT'HE'SA, a title of MRĬRA, ſignifying Lord of the *Pramat'has*, who are ſuppoſed to be the *five ſenſes*; and, in that character, he is believed to have formed a race of men. STEPHANUS of *Byzantium* and EUSTATHIUS † aſſert, that AETUS was an *Indian* or *Hindu*; but, as nothing like this can be collected from the *Puránas*, they confounded, I imagine, IT or AIT with YADU, of which I ſhall inſtantly ſpeak. The chief ſtation of Íт, or *Aitan*, which could not have been very diſtant from *Mŕĭra-ſt'han*, I take to be the celebrated place of worſhip, mentioned by STRABO ‡, and by DIODORUS called *Avatum* ‖, which was near *Meroë*: it was the ſame, I believe, with the *Tathis* of PTOLEMY and *Tatu* of PLINY, ſituated in an iſland, which according to Mr. BRUCE is at preſent known by the name of *Kurgos*, and which was ſo near *Meroë* as to form a kind of harbour for it.

The origin of the *Yádus* is thus related. UGRASE'NA, or UGRA, was father of DE'VACI, who was CRISHNA's mother; his ſon CANSA, having impriſoned him, and uſurped his throne, became a mercileſs tyrant, and ſhowed a particular animoſity againſt his kinſmen the *Yádavas*, or deſcendants of YADU, to whom, when any of them approached him, he uſed to ſay *yátu*, or *be gone*, ſo repeatedly, that they acquired the nickname of *Yátu*, inſtead of the reſpectable patronymick, by which they had been diſtinguiſhed. CANSA made ſeveral attempts to deſtroy the Children of DE'VACI; but CRISHNA, having been preſerved from his machinations, lived to kill the tyrant and reſtore UGRASE'NA, who became a ſovereign of the world. During the infancy, however, of CRISHNA, the perſecuted *Yádavas* emigrated from *India*, and retired to the mountains of the exterior *Cuſha-dwíp*, or *Abyſſinia*: their

* DIOD. SIC. B. 1.

† On *Dionys.* Περιηγ.

‡ STRAB. B. 17. p. 823

‖ Diod. Sic. B. 4. c. 1.

leader

leader *Yátu* was properly entitled YA'DAVE'NDRA, or Prince of *Yádavas*; whence thoſe mountains acquired the ſame appellation. They are now called *Ourémi'ré*, or *Ardwemidré*, which means, we are told, the Land of *Arwe*, the firſt king of that country*; but, having heard the true *Sanſcrit* name pronounced, in common ſpeech, *Yarevindra*, I cannot but ſuſpect a farther corruption of it in the name of the *Abyſſinian* mountains. Thoſe *Indian* emigrants are deſcribed in the *Puráns* as a blameleſs, pious, and even ſacred, race; which is exactly the character given by the ancients to the genuine *Ethiopians*, who are ſaid by STEPHANUS of *Byzantium*, by EUSEBIUS, by PHILOSTRATUS, by EUSTATHIUS, and others, to have come originally from *India* under the guidance of AETUS, or *Yátu*; but they confound him with king AIT, who never was there: YA'DABE'NDRA (for ſo his title is generally pronounced), ſeems to be the wiſe and learned *Indian*, mentioned in the *Paſchal Chronicle* by the name of ANDUBARIUS †. The king or chief of the *Yátus* is correctly named YA'TUPA, or in the weſtern pronunciation, JA'TUPA; and their country would, in a derivative form, be called *Játupéya*: now the writers of the Univerſal Hiſtory aſſert, that the native *Ethiopians* give their country, even at this day, the names of *Itiopia* and *Zaitiopia*. There can be little or no doubt, that YA'TUPA was the king ÆTHIOPS of the *Greek* Mythologiſts, who call him the ſon of VULCAN; but, according to the *Puráns*, that deſcent could not be aſcribed to YA'TU, though it might, perhaps, to King I'T; for it will be ſhown, in a ſubſequent part of this eſſay, that the VULCAN of *Egypt* was alſo conſidered by the *Hindus* as an *avántara*, or ſubordinate incarnation of MAHA'DE'VA.

Not only the land of *Egypt* and the countries bordering on the *Nile*, but even *Africa* itſelf, had formerly the appellation of *Aëria*; from the numerous ſettlements, I ſuppoſe, of the *Ahirs*, or ſhepherds, as they are called in the ſpoken *Indian* dialects: in *Sanſcrit* the true word is *Abhír*, and hence, I conceive, their principal ſtation in the land of *Góſhen*, on the borders of *Egypt*, was named *Abaris* and *Avaris*; for *Ghoſhen'à* itſelf, or *Ghóſhàyana*, means *the abode of ſhepherds* or *herdſmen*; and *Ghóſha*, though it alſo ſignify a *gópál*, or Cowherd, is explained in *Sanſcrit* dictionaries by the phraſe *Abhírapallì*, a *town* or *village* of *Abhíras* or *Pallis*.

The mountains of *Abyſſinia* have in *Sanſcrit* the name of *Niſhadha*; and from them flowed the *Nandà* (which runs through the land of *Puſhpaverſham* about the lake *Dembea*), the Little *Crĭſhná*, or *Tacazzè*, and the *Sanc'hanágá*, or *Mareb*; of

* Univ. Hiſt. *vol.* 16. *p.* 222.

† Chron. Paſch. *p.* 36.

which

which three rivers we ſhall hereafter ſpeak more particularly. Since the *Hindus* place another *Méru* in the Southern Hemiſphere, we muſt not be ſurprized to find the *Nílá* deſcribed by them as ruſhing over three ranges of mountains, which have the ſame names with three ſimilar ranges, over which the *Gangá*, in their opinion, forces its way, before it enters the plains of *India:* thoſe mountains are the *Himálaya*, or Seat of Snow, the *Niſhadha*, and the *Hémacúta*, or *with a golden peak*. The *Hindus* believe, that a range of *African* hills is covered with ſnow; the old *Egyptians*, *Greeks*, and *Romans*, believed the ſame thing; and modern travellers aſſert, that ſnow falls here and there in ſome parts of *Africa*; but the ſouthern *Himálaya* is more generally called *Sítánta*, which implies the *end*, or limit, *of cold*. On the northern *Himálaya* is the celebrated lake *Mánaſa-ſaras*, or *Mánaſaróvara*, near *Suméru*, the abode of Gods; who are repreſented ſometimes as reclining in their bowers, and ſometimes as making aërial excurſions in their *Vimánas*, or *heavenly cars:* thus on, or within, the ſouthern *Himálaya*, we find the lake of the Gods, which correſponds with that in the north; with this difference, that the exiſtence of the ſouthern lake cannot be doubted, while that of the northern may well be called in queſtion (unleſs there be ſuch a lake in the unknown region between *Tibet* and the high plains of *Bokhára*); for what the *Sannyáſis* call *Mánaſaróvar*, is in truth the *Vindhyaſaras* of the *Puráns*. Beyond the ſouthern lake of the Gods is another *Méru*, the ſeat alſo of divinities, and the place of their airy jaunts; for it is declared in the *Puráns*, as the *Bráhmens* inform us, that, within the mountains, towards the ſource of the *Nílá*, there are delightful groves inhabited by deities, who divert themſelves with journeying in their cars from hill to hill: the *Greeks* gave to that ſouthern *Méru* the appellation of Θεῶν ὄχημα, in alluſion to the *Vimáns*, or *celeſtial* cars; but they meant a range of hills, according to PLINY and AGATHEMERUS *, not a ſingle inſulated mountain. PLINY, who places that mountainous tract in the ſouth of *Ethiopia*, makes it project a great way into the ſouthern ocean: its weſtern limit is mentioned by PTOLEMY; and the *Nubian* geographer ſpeaks of all the three ranges. By the *Chariot of the Gods* we are to underſtand the lofty grounds in the centre of the *African* peninſula, from which a great many rivers, and innumerable rivulets, flow in all directions: fires were conſtantly ſeen at night on the ſummit of thoſe highlands; and that appearance, which has nothing very ſtrange in it, has been fully accounted for by modern travellers.

* Plin. l. 6. c. 30. l. 5. c. 1. l. 2. c. 106. Agathem. B. 2. ch. 9.

We come now to the *Háſyasílas* or *Habaſhis*, who are mentioned, I am told, in the *Puránas*, though but ſeldom; and their name is believed to have the following etymology; C'HARMA, having *laughed* at his father SATYAVRATA, who had by accident intoxicated himſelf with a fermented liquor, was nicknamed *Háſyasíla*, or the Laugher; and his deſcendants were called from him *Háſyasílas* in *Sanſcrit*, and, in the ſpoken dialects, *Háſyas*, *Hanſelis*, and even *Habaſhis*; for the *Arabick* word is ſuppoſed by the *Hindus* to be a corruption of *Háſya*. By thoſe deſcendants of C'HARMA they underſtand the *African* negroes, whom they ſuppoſe to have been the firſt inhabitants of *Abyſſinia*; and they place *Abyſſinia* partly in the *dwipa* of *Cuſha*, partly in that of *Sanc'ha Proper*. Dr. POCOCK was told at the Cataracts, that beyond them, or in the exterior *Cuſha-dwíp*, there were *ſeven* mountains; and the *Bráhmens* particularly affect that number: thus they divided the old continent into ſeven large iſlands, or peninſulas, and in each iſland we find ſeven diſtricts with as many rivers and mountains. The following is the *Pauránic* diviſion of *Cuſha-dwíp* called *exterior*, with reſpect to that of *Jambu*:

DISTRICTS.	MOUNTAINS.	RIVERS.
'Apyáyana.	*Puſhpaverſha.*	*Nándá.*
Páribhadra.	*Cumudádri.*	*Rajaní.*
Dévaverſha.	*Cundádri.*	*Cuhú.*
Ramanaca.	*Vámadéva.*	*Saraſwatì.*
Sumanaſa.	*'Satas'rínga.*	*Siníválì.*
Suróchana.	*Saraſa.*	*Anumatì.*
Avijn'yáta.	*Sahaſraſruti.*	*Rácá.*

It ſeems unneceſſary to ſet down the etymology of all theſe names; but it may not be improper to add, that *'Satas'ringa* means *with a hundred peaks*, and *Sahaſraſruti*, with *a thouſand ſtreams*.

Between the exterior *Cuſha-dwíp* and *Sanc'ha Proper* lies, according to the *Puráns*, on the banks of the *Nílá*, the country of *Barbara*; which includes, therefore, all the land between *Syene* and the confluence of the *Nile* with the *Tacazzè*, which is generally called *Barbara* and *Barbar* to this day; but, in a larger ſenſe, it is underſtood by the *Pauránics* to comprize all the burning ſands of *Africa*. *Barbaradéſa*, which anſwers to the *loca arida et ardentia*, mentioned by PLINY as adjacent to the *Nile*, was a fertile and charming country, before it was *burned*, according to the

the *Hindu* legends, which will be found in a ſubſequent ſection, firſt by the approach of *Súrya*, or the Sun, and afterwards by the influence of SANI, or *Saturn*. Its principal city, where *Barbaréſwara* had a diſtinguiſhed temple, was called *Barbara-ſt'han*, and ſtood on the banks of the *Nile*: the *Tamóvanſa*, or Children of TAMAS, reſided in it; and it is, moſt probably, the town of TAMA, which PLINY places on the eaſtern bank of the *Nile*, an hundred and twenty-nine *Roman* miles above *Syene* *.

The crude noun *Tamas*, in the firſt caſe *Tamah*, and *Tamó* before certain conſonants, means *darkneſs*, and it is alſo a title of SANI; whoſe deſcendants are ſuppoſed to have lived in *Barbara*, and are repreſented as an ill-clothed, half-ſtarved race of people, much like the preſent inhabitants of the ſame country. The following fables appear to be aſtrological, but might have had ſome foundation in hiſtory, as the *Hindu* regents of planets were in truth old philoſophers and legiſlators, whoſe works are ſtill extant.

TAMAH, or SATURN, had two wives, ST'HAVIRA' and JARAT'HA', whoſe names imply *age* and *decrepitude*: by the former he had ſeven ſons, MRĬTYU, CA'LA, DA'VA, ULCA', GHO'RA, ADHAMA, CAN'TACA; by the latter only two, MA'NDYA and GULICA. The ſons of MA'NDYA were AS'UBHA, ARISHT'HA, GULMA, PLI'HA: thoſe of GULICA were GAD'HA and GRAHILA: they were all abominable men, and their names denote every thing that is horrid. It is expreſsly ſaid in the *Puránas*, that TAMAH was expelled from *Egypt* exactly at the time when ARAMA, a grandſon of SATYAVRATA, died; that his children retired into *Barbara*; and that his grandſon GULMA reigned over that country, when it was invaded by CAPE'NASA, who will preſently appear, beyond a doubt, to be CEPHEUS. The *Tamóvanſas* are deſcribed as living in *Barbara* Proper, which is now called *Nubia*, and which lay, according to the *Indian* geography, between the *dwípas* of SANC'HA and of CUSHA *without*: but the other parts of *Barbara*, toward the mouths of the *Nile*, were inhabited by the children of RA'HU; and this brings us to another aſtronomical tale, extracted from a book, entitled *Chint'áman'i*.

RA'HU is repreſented, on account of his tyranny, as an immenſe river-dragon, or crocodile, or rather a fabulous monſter with four talons, called *Gráha*, from a root implying *violent ſeizure*: the word is commonly interpreted *hanger*, or *ſhark*, but in ſome dictionaries it is made ſynonymous to *nacra*, or *crocodile*; and, in the *Pu-*

* Plin. lib. 6. cap. 29.

ránas,

ránas, it ſeems to be the creature of poetical fancy. The tyrant, however, in his human ſhape, had ſix children, DHWAJA, DHU'MRA, SINHA, LAGUD'A, DANDA', and CARTANA (which names are applied to *comets* of different forms), all equally miſchievous with their father: in his allegorical character, he was decapitated by VISHNU; his lower extremity became the *Cétu*, or *dragon's tail*, and his head, ſtill called *Ráhu*, the *aſcending node*; but the head is ſuppoſed when it fell on earth, to have been taken up by PIT'HI'NAS, or PIT'HI'N, and by him placed at *Rábu-ſt'hán* (to which the *Greeks* gave the name of *Heroöpolis*), where it was worſhipped, and gave oracular anſwers; which may be the origin of the ſpeaking heads, mentioned by *Jewiſh* writers as prepared by magick. The poſterity of RAHU were from him denominated *Gráhas*; and they might have been the anceſtors of thoſe *Craii*, or *Greeks*, who came originally from *Egypt*: it is remarkable, that HESIOD, in his *Theogony*, mentions women in *Africa* named *Graiai*, who had fine complexions, and were the offſpring of PHORCYS and CE'TO. The *Gráhas* are painted by the writers of the *Puránas* in moſt unfavourable colours; but an allowance muſt be made for a ſpirit of intolerance and fanaticiſm: RA'HU was worſhipped, in ſome countries, as HAILAL, or LUCIFER (whom in ſome reſpects he reſembles), was adored in the eaſtern parts of *Egypt*, and in *Arabia*, the *Stony* and the *Deſert*, according to JEROM, in the life of HILARION; but, though we muſt ſuppoſe, that his votaries had a very different opinion of the *Gráhas* from that inculcated by the *Hindus*, yet it is certain, that the *Greeks* were not fond of being called *Graioi*, and very ſeldom gave themſelves that appellation.

The ſandy deſerts in *Egypt*, to the eaſt and weſt of the *Nile*, are conſidered by the *Puráns* as part of *Barbara*; and this may account for what HERODOTUS ſays of the word *Barbaros*, which, according to him, was applied by the *Egyptians* to all, *who were unable to ſpeak their language*, meaning the inhabitants of the deſert, who were their only neighbours: ſince the people of *Barbara*, or children of SATURN, were looked upon as a cruel and deceitful race, the word was afterwards transferred to men of that diſpoſition; and the *Greeks*, who had lived in *Egypt*, brought the appellation into their new ſettlements, but ſeem to have forgotten its primitive meaning.

On the banks of the *Nílà* we find the *Crĭſhna-giri*, or Black mountain of *Barbara*, which can be no other than the black and barren range of hills which Mr. BRUCE ſaw at a great diſtance towards the *Nile* from *Tarſowey*: in the caves of thoſe mountains lived the *Tamavatſas*, of whom we ſhall ſpeak hereafter. Though the land of

Barbara

Barbara be ſaid in the *Puráns* to lie between the *dwípas* of CUSHA and SANC'HA, yet it is generally conſidered as part of the latter. The *Nile*, on leaving the burning ſands of *Barbara*, enters the country of SANC'HA *Proper*, and forces its way through the *Héma-cúta*, or Golden Mountains; an appellation which they retain to this day; the mountain called *Panchryſos* by the *Greeks*, was part of that range, which is named *Ollaki* by the *Arabs*; and the *Nubian* geographer ſpeaks of the Golden Mountains, which are a little above *Oſwán*. Having paſſed that ridge, the *Nílà* enters *Cardama-ſt'hán*, or the Land of *Mud*; which obviouſly means the fertile *Egyptian* valley, ſo long covered with *Mud* after every inundation: the *Puránas* give a dreadful idea of that *muddy land*, and aſſert that no mortal durſt approach it; but this we muſt underſtand as the opinion formed of it by the firſt coloniſts, who were alarmed by the reptiles and monſters abounding in it, and had not yet ſeen the beauty and richneſs of its fertile ſtate. It is expreſsly declared to be in *Miśra-ſt'hán*, or the *Country of a mixed People*; for ſuch is the meaning in *Sanſcrit* of the word *Miśra*: ſometimes the compound word *Miśra-ſt'hán* is applied to the Lower *Egypt*, and ſometimes (as in the hiſtory of the wars of *Capénaſa*) to the whole country; in which ſenſe, I am told, the word *Gupta-ſt'hán* is uſed in ancient books, but I have never yet ſeen it applied ſo extenſively. *Agupta* certainly means *guarded on all ſides*; and *Gupta*, or *guarded*, is the name of a place reputed holy; which was, I doubt not, the famed *Coptos* of our ancient geographers; who mentioned a tripartite arrangement of *Egypt*, exactly conformable to the three diviſions of *Miśra-ſt'hán*, particularly recorded in the *Puránas*: the firſt of them was *Tapóvana*, the woodlands of *Tapas*, or *auſtere devotion*, which was probably Upper *Egypt*, or *Thebais*; the ſecond, *Miśra* Proper, called alſo *Cantaca-déſa*, or the Land of Thorns, which anſwers to the Lower *Egypt* or *Heptanomis*; and the third, *Aranya* and *Atavì*, or *the Foreſts* emphatically ſo named, which were ſituated at the mouths of the *Nílà*, and formed what we call the *Delta*. The firſt inhabitants of *Egypt* found, on their arrival, that the whole country about the mouths of the *Nile* was an immenſe foreſt; part impervious, which they called *Atavì*, part uninhabited, but practicable, which had the name of *Aranya*.

TAPO'VANA ſeems to have been always adapted to religious auſterities; and the firſt *Chriſtian* anchorets uſed to ſeclude themſelves in the wilds of *Thebes* for the purpoſe of contemplation and abſtracted piety: thus we read, that the abbot PACHOMIUS retired, with his diſciples, to the wilderneſs of *Tabenna*, and there built a monaſtery, the remains of which are ſtill viſible, a day's journey below *Dendera*, near

near an iſland now called *Tabenna*, and, according to SICARD, a little below the ſite of *Thebes*. The country around *Dendera* is at this day covered with Foreſts of *Daum*; a tree, which ſome deſcribe as a dwarf palm, and others as a *Rhamnus*; thence *Dendera* was called by JUVENAL the *ſhady Tentyra*.

There can be no doubt, that *Tapóvana* was Upper *Egypt*, or the *Thebais*; for ſeveral places, the ſituation of which will be clearly aſcertained in the courſe of this eſſay, are placed by the authors of the *Puráns* in the foreſts of *Tapas*: the words *Thebaius* and *Thebinites* are both ſaid to be derivatives of *Thebai*; but the ſecond of them ſeems rather derived from *Tapóvan* or *Tabenna*. So fond are nations of accommodating foreign words to their own language, that the *Arabs*, who have changed *Tapoſiris* into *Abú'ſſair*, or *Father of Travel*, have, in the ſame ſpirit, converted *Tabenna* into *Medínatábiná*, or the *Town of our Father*; though ſome of them call it *Medínat Tabu* from *Tapó*, which an *Arab* could not pronounce. The principal place in this diviſion was *Cardama-ſt'halì*, which is mentioned in the *Puráns* as a temple of conſiderable note; the legend is, that GUPTESWARA and his conſort had long been *concealed* in the *mud* of the *Nílà*, near *Gupta-ſt'hán*, or *Coptos*, but at length ſprang from it and appeared at *Cardama-ſt'halì*, both wholly beſmeared with *mud*, whence they had alſo the titles of CARDAME'SWARA and CARDAME'SWARI'. We may obſerve, that *Gupta* ſignifies both *guarded* and *concealed*, and in either ſenſe may be the origin of the word *Aiguptos*: as to *Cardama*, the canine letter is ſo often omitted in the vulgar pronunciation of *Sanſcrit* words, that *Cardam*, or *Cadam*, ſeems to be the CADMUS of the *Greeks*; and we ſhall hereafter illuſtrate this etymology with circumſtances, which will fully confirm it.

Miſra-ſt'hán is called alſo *Miſra* and *Miſrena* in the ſacred books of the *Hindus*; where it is ſaid, that the country was peopled by a *mixed* race, conſiſting of various tribes, who, though living for their convenience in the ſame region, kept themſelves diſtinct, and were perpetually diſputing either on their boundaries, or, which is moſt probable, on religious opinions: they ſeem to be the *mingled people* mentioned in Scripture. To appeaſe their feuds, BRAHMA' himſelf deſcended in the character of ISWARA: whence *Miſréſwara* became one of the titles. The word *Miſr*, which the *Arabs* apply to *Egypt* and to its metropolis, ſeems clearly derived from the *Sanſcrit*; but, not knowing its origin, they uſe it for *any large city*, and give the appellation of *Almiſrán* in the dual to *Cúfa* and *Baſra*: the ſame word is alſo found in the ſenſe of a *boundary*, or *line of ſeparation*. Of *Miſr* the dual and plural forms in *Hebrew* are *Miſraïm* and *Miſrím*, and the ſecond of them is often applied in ſcripture

ture to the people of *Egypt*. As to the *Mazor*, or more properly, *Maṡúr*, there is a difference of opinion among the tranſlators of ISAIAH *: in the old *Engliſh* verſion we find the paſſage, in which the word occurs, thus rendered, " the brooks of " *defence* ſhall be emptied and dried up;" but Biſhop LOWTH, after ſome commentators, changes the *brooks* of *defence*, into the *canals* of *Egypt*; and this is obviouſly the meaning of the prophet; though the form of the word be more like the *Arabian* plural *Muſúr* than any form purely *Hebrew*.

STEPHANUS of *Byzantium* ſays, that *Egypt* was called *Myara* by the *Phenicians*; but ſurely this is a miſtake for *Myſara:* according to SUIDAS and EUSEBIUS, it had the name of *Meſtraia*; but this, I conceive, ſhould be written *Meſraia* from *Miſréya*, which may be grammatically deduced from the root *Miſr*. The name *Cantaca déſa* was given to *Muſra* for a reaſon ſimilar to that of *Acanthus*, a town and territory abounding in *thorny trees*.

It was an opinion of the *Egygtian* prieſts, and of HERODOTUS alſo, when he was in their country, that the valley of *Egypt* was formerly an arm of the ſea, which extended as far as the Cataracts: whether this opinion be well founded, is not now the queſtion; but a notion of the ſame kind occurs in the *Puránas*, and the *Bráhmens* account, in their way, for the alteration, which they ſuppoſe to have happened. PRAMO'DA, they ſay, was a king of *Sanc'ha-dwíp* Proper, and reſided on the ſhore of the ſea called *Sanc'hódadhi:* the country was chiefly peopled by *Mléch'has*, or or ſuch as *ſpeak barbarouſly*, and by ſavage *Rácſhaſas*, who are believed to be *evil demons*; nor was a ſingle *Bráhmen* to be found in the kingdom, who could explain the *Védas* and inſtruct mankind in their duties. This greatly afflicted the pious king; till he heard of a *Ríſhi*, or *holy man*, eminent in piety and in ſacred knowledge, who lived in the country of *Barbara*, and was named PI'T'HI or PI'T'HI-NASA, but was generally diſtinguiſhed by the title of PI'T'HI-RĬSHI; he was viſited by PRAMO'DA in perſon, and, after many intreaties, prevailed on to accompany the king to *Sanc'ha-dwípa*; but, when he ſaw the incorrigible wickedneſs of its inhabitants, he was wholly in deſpair of effecting any good in that country, and paſſed the night without ſleep. Early in the morning he repaired to the ſea-ſhore, where, taking water and *Cuſ'ha*-graſs in his hand, he was on the point of uttering an imprecation on SANC'HO'-DADHI: the God of the Ocean perceived his intent, and threw himſelf trembling at his feet, aſking humbly what offence he had committed.

* Chap. 19. v. 6. See 2 Kings, 18. 24.

" Thy

"Thy waters, anſwered the Saint, waſh a polluted region, into which the king has "conducted me, but in which I cannot exiſt: give me inſtantly a purer piece of "land, on which I may reſide and perform the duties of religion." In that inſtant the ſea of SANC'HA retired for the ſpace of a hundred *yójanas*, or 492 miles, and left the holy man in poſſeſſion of all the ground appearing on that dereliction: the king, on hearing of the miracle, was tranſported with joy, and cauſed a ſplendid palace to be built on an iſland in the territory newly acquired; it was called *Pit'-hi-ſt'hán*, becauſe PI'T'HI reſided in it, having married the hundred daughters of PRAMO'DA; and, on his beginning to read lectures on the *Véda*, he was in a ſhort time attended by numerous diſciples. This fable, which had, probably, ſome foundation in truth, is related in a book, entitled, *Viſ'wa-ſára-pracáſa*, or a *Declaration of what is moſt excellent in the univerſe*.

PIT'HI-ST'HA'N could not be very diſtant from *Cardama-ſt'halì*, or the city of *Thebes*, to which, according to the *Bráhmánda*, the Sage's daughter, from him called PAIT'HINI', uſed to go almoſt every day for the purpoſe of worſhipping MAHA'DE'VA: it ſeems, therefore, to be the *Pathros* of Scripture, named *Pathures* by the *Greek* interpreters, and *Pathuris* by PLINY, from whoſe context it appears to have ſtood at no great diſtance from *Thebes*; and it was, certainly, in Upper *Egypt*. It was probably the ſame place, which PTOLEMY calls *Tathyris*, either by miſtake or in conformity to the pronunciation of the *Ethiopians*, who generally ſubſtituted the letter T for P, which they could not articulate: from the data in PTOLEMY it could not have been above ſix miles to the weſt of *Thebes*, and was, therefore, in that large iſland formed by an arm of the *Nile*, which branches out at *Ermenth*, and rejoins the main body of the river at the *Memnomium*. According to the old *Egyptians*, the ſea had left all Upper *Egypt* from the Cataracts as far as *Memphis*; and the diſtance between thoſe two places is nearly that mentioned in the *Puránas*, or about an hundred *yójans*: the God of the Ocean, it ſeems, had attempted to regain the land, which he had been forced to relinquiſh; but MAHA'DE'VA (with a new title derived from NABHAS, or the *ſky*, and ISWARA or *lord*) effectually ſtopped his encroachments; and this was the origin of *Nabhah-ſt'han*, or *Memphis*, which was the moſt diſtinguiſhed among the many conſiderable places in *Miſra*, and which appears to have conſiſted of ſeveral detached parts; as 1. *Ugra-ſt'hán*, ſo called from UGRA, the UCHOREUS of the *Greeks*; 2. *Nabhah*, the *Noph* of Scripture; 3. A part named *Miſra*; 4. *Móhana-ſt'hán*, which may, perhaps, be the preſent *Mohannan*; and,

5. *Laya-*

5. *Laya-ſt'hán*, or *Laya-vatì*, vulgarly pronounced *Layáti*, the ſuburb of *Lete*, or *Letopolis*.

Ródana-ſt'han, or the place of Weeping, is the iſland in the lake of *Máríſhà*, or *Mœris*, concerning which we have the following *Indian* ſtory in the *Viſwaſára-pracáſa*.

PETÍ-S'UCA, who had a power of ſeparating his ſoul from his body, voluntarily aſcended toward heaven; and his wife MA'RÍ'SHA', ſuppoſing him finally departed, retired to a wilderneſs, where ſhe ſat on a hillock, ſhedding tears ſo abundantly, that they formed a lake round it; which was afterwards named *Aſru-tírt'ha*, or *the holy place of tears*: its waters were black, or very dark azure, and the ſame colour is aſcribed by STRABO to thoſe of *Mœris*. Her ſon ME'D'HI, or ME'RHI, SUCA had alſo renounced the world, and, ſeating himſelf near her, performed the ſame religious auſterities: their devotion was ſo fervent and ſo long continued, that the inferior Gods began to apprehend a diminution of their own influence. At length MA'RÍ'SHA' dying *petivratà*, or *dutiful to her lord*, joined him among the *Viſhnu-lóca*, or inhabitants of VISHNU's heaven; and her ſon, having ſolemnized the obſequies of them both, raiſed a ſumptuous temple, in which he placed a ſtatue of VISHNU, at the ſeat of his *weeping* mother; whence it acquired the appellation of *Ródana-ſt'hána*. "They, who make ablutions in the lake of *Aſru-tírt'ha*, ſays the "*Hindu* writer, are purified from their ſins, and exempt from worldly affections, "aſcending after death to the heaven of VISHNU; and they who worſhip the deity "at *Ródana-ſt'hán* enjoy heavenly bliſs, without being ſubject to any future tranſ-"migration." No lake in the world, except that of *Mœris*, correſponds, both in name and in circumſtances, with that of *Aſru-tírt'ha* and the iſland in the midſt of it, which was alſo called *Mérhi*, or *Mérhi-ſt'han*, from the name of the prince who conſecrated it: the two ſtatues on it were ſaid by the *Greeks*, to be thoſe of MŒRIS and his queen; but they appear from the *Puránas* to have been thoſe of VISHNU, or OSIRIS, and of MA'RÍ'SHA', the mother of MŒRIS; unleſs the image of the God was conſidered in ſubſtance as that of the departed king, who, in the language of the *Hindu* theologians, was wholly *abſorbed* in the divine eſſence. Three lakes in the countries adjacent to the *Nile*, have names in the *Puráns* derived from *aſru*, or *tears*; firſt, *Sócáſru*, or Tears of *Sorrow*, another name for *Aſrutírt'ha*, or *Mœris*; ſecondly, *Herſháſru*, or Tears of *Joy*; and, thirdly, *'Anandaſru*, or Tears of an *inward pleaſurable ſenſation*; to both which belong legendary narratives in the *Puránas*. One of the infernal rivers was named *Aſrumatì*, or the *Tearful*; but the firſt

of them was *Vaitaranì*, where a boatman had been ſtationed to ferry over the ſouls of mortals into the region of YAMA: the word *vitarana*, whence the name of the river is derived, alludes to the *fare* given for the paſſage over it.

III. We muſt now ſpeak particularly of *Sanc'ha-dwípa Proper*, or the *Iſland of Shells*, as the word literally ſignifies; for *Sanc'ha* means a ſea-ſhell, and is generally applied to the large buccinum: the Red Sea, which abounds with ſhells of extraordinary ſize and beauty, was conſidered as part of the *Sanc'hábdhi*, or *Sanc'hódadhi*; and the natives of the country before us wore large collars of ſhells, according to STRABO, both for ornament and as amulets. In the *Puránas*, however, it is declared, that the *dwípa* had the appellation of *Sanc'ha*, becauſe *its inhabitants lived in ſhells*, or in caverns of rocks hollowed like ſhells, and with entrances like the mouths of them: others inſiſt, that the mountains themſelves, in the hollows of which the people ſought ſhelter, were no more than immenſe heaps of ſhells thrown on ſhore by the waves, and conſolidated by time. The ſtrange idea of an actual habitation in a ſhell was not unknown to the *Greeks*, who repreſent young *Nerites*, and one of the two CUPIDS, living in ſhells on the coaſts of that very ſea. From all circumſtances collected, it appears, that *Sanc'ha-dwípa*, in a confined ſenſe, was the *Troglodytica* of the ancients, and included the whole weſtern ſhore of the Red Sea; but that, in an extenſive acceptation, it compriſed all *Africa*: the *Troglodytes*, or *inhabitants* of *caves*, are called in Scripture alſo *Sukím*, becauſe they dwelt in *ſucas*, or *dens*; but it is probable, that the word *ſuca*, which means a *den* only in a ſecondary ſenſe, and ſignifies alſo an *arbour*, a *booth*, or a *tent*, was originally taken, in the ſenſe of a *cave*, from *Sanc'ha*; a name given by the firſt inhabitants of the *Troglodytica* to the rude places of ſhelter, which they found or contrived in the mountains, and which bore ſome reſemblance to the mouths of large *ſhells*. The word *Sanc'ha-dwípa* has alſo in ſome of the *Puránas* a ſenſe yet more limited, and is reſtrained to the land inhabited by the ſnake *Sanc'ha-nága*, which included the mountains of *Hubáb*, or the Serpent, and the *Abyſſinian* kingdom of *Tigrè*: the ſame region is, however, ſometimes called *Sanc'ha-vana*, and is reported to be a wonderfully fine country, watered by noble rivers and ſtreams, covered with foreſts of the moſt uſeful and beautiful trees, and a hundred *yójans* in length, or 492 miles; a dimenſion, which correſponds exactly enough with a line drawn from the ſouthern limit of *Tigrè*, to the northern extremity of the *Hubáb* mountains. It lay between the *Cálicá*, or *Cálí*, and the ſea; its principal river was the *Sanc'ha-nága*, now called *Máreb*, and its capital city near the ſea-ſhore, where the royal ſnake reſided,

had

had the name of *Cót'imì*; not far from which was a part of the mountain *Dyutimán*, or *brilliant*, ſo called from the precious metals and gems, with which it abounded.

In the *Dherma-ſáſtra* both *Nágas* and *Garudás* are named as *races of men* deſcended from ATRI, concerning whom we ſhall preſently ſpeak more at large; but, in the language of Mythology, the *Nágas*, or *Uragas*, are large *ſerpents*, and the *Garudás* or *Supernas*, immenſe *birds*, which are either the *Conders* of M. BUFFON and *Vulture Griffons* of LINNÆUS, called *Rokhs* by the *Arabian* fabuliſts and by MARCO POLO, or mere creatures of imagination, like the SÍMORG of the *Perſians*, whom SADI deſcribes as receiving his daily allowance on the mountain of *Káf*; whatever be the truth, the legend of *Sanc'ha-nága* and *Garudá* is told in the ancient books of the *Hindus*.

The king of Serpents formerly reigned in *Chacra-giri*, a mountain very far to the eaſtward: but his ſubjects were obliged by the power of GARUD'A to ſupply that enormous bird with a ſnake each day: their king at length refuſed to give the daily proviſion, and intercepted it himſelf, when it was ſent by his ſerpentine race. This enraged GARUD'A, who threatened to devour the ſnakes and their king; nor would his menaces have been vain, if they had not all retired to *Sanc'ha-dwíp*, where they ſettled in *Sanc'ha-vana* between the *Cálì* and the ſea, near the ſtation of *Swámi* CA'RTICE'YA, God of arms, where they are ſuppoſed to live ſtill unmoleſted, becauſe GARUD'A dares not approach the manſion of that more powerful divinity. "They, "ſays the *Indian* writer, who perform yearly and daily rites in honour of SANC'HA-"NA'GA, will acquire immenſe riches:" that royal ſerpent is alſo called SANC'HAMUC'HA, becauſe his mouth was like that of a ſhell, and the ſame denomination is given to the rocks on which he dwelt. The Mountains of Snakes are mentioned by the *Nubian* Geographer, and are to this day called *Hubáb*, which in *Arabick* means a ſnake in general according to JAUHERI, and *a particular ſpecies of ſerpent* according to MAIDA'NI: the ſame region was named *Ophiuſa* by the *Greeks*, who ſometimes extended that appellation to the whole *African* continent. The breath of *Sanc'ha-nága* is believed by the *Hindus* to be a *fiery poiſonous wind*, which burns and deſtroys animals and vegetables to the diſtance of a hundred *yójans* round the place of his reſidence; and by this hypotheſis they account for the dreadful effects of the *ſamùm*, or hot *envenomed* wind, which blows from the mountains of *Hubáb* through the whole extent of the Deſert. Two *Ríſhis*, or *Saints*, named AGASTI and A'STICA undertook to ſtop ſo tremendous an evil: the firſt of them repaired for that

that purpoſe to *Sanc'ha-vana*, where he took his *abode* at a place, thence called *Agaſti-bhuvana*, near the ſea-ſhore, and not from *Cótimì*; but the gentle means, to which he had recourſe with the royal ſnake, proved ineffectual. A'STICA, by harſher meaſures, had more ſucceſs; and made the ſnake, ſay the *Bráhmens*, not only tractable, but even well-diſpoſed to all ſuch as reſpectfully approached him: he even reduced the ſize of the ſerpent ſo much, as to carry him about in an earthen veſſel; and crowds of people are now ſaid to worſhip him at the place of his reſidence near the river *Cálì*. This is, probably, the ſnake HEREDI ſo famed throughout *Egypt*: the *Muſelmans* inſiſt, that it is a *Shaikh* of that name transformed into a ſnake; the *Chriſtians*, that it is ASMODEUS mentioned in the book of TOBIT, the *Aſhmúgh-dív* of the *Perſian* romances; and the *Hindus* are equal to them in their ſuperſtitious notions. My learned friends at *Cásì* inform me, that the ſacred ſnake is at this day viſited by travelling *Sannyáſis*; but I cannot aſſert this as a fact, having never ſeen any *Hindu* who had travelled ſo far: thoſe, whom I have ſeen, had never gone beyond the *Euphrates*; but they aſſured me, that they would have paſſed that river, if they had not been deterred by reports of diſturbances among the *Arab* chiefs to the weſtward. The boldeſt religious adventurers, among the *Sannyáſis*, are thoſe from the north-weſt of *India*; for no native of *Bengal*, or, indeed, of the countries eaſt of the *Ganges*, would now attempt (at leaſt I never heard of any who had attempted) ſuch perilous journeys. As to the belief of the *Hindus*, that A'STICA put an effectual ſtop to the fiery breath of *Sanc'ha-nága* or the *Samúm*, it appears from the relation of Mr. BRUCE, that the ſecond publick-ſpirited ſaint had no more ſucceſs than the firſt.

We muſt obſerve, that *naga*, or *motionleſs*, is a *Sanſcrit* name for a *mountain*, and that *nága*, its regular derivative, ſignifies both a *mountain-ſnake* and a wild *elephant*: accordingly we read of an *elephant-king* in *Sanc'ha*, who reigned on the banks of the *Mareb*, thence called *Sanc'ha-nága*; and, when CRISHNA had ſlain both him and his ſubject elephants, their *bones* were heaped on the banks of the *Tacazzè*, which from that event had the name of *Aſt'himatì*.

The other parts of *Sanc'ha-dwíp* Proper, adjacent to the ſea, were inhabited by the ſubjects of SANC'HA'SURA, whoſe palace was a *ſhell* in the ocean; but they are ſaid to have reſided in *ſhells*, on or near the mountains of the *African* continent: they are repreſented as cannibals, and even as demons incarnate, roaming by night and plundering the flat country, from which they carried off men, women, and children, whom they devoured *alive*; that is, perhaps, as raw fleſh is now eaten in *Abyſſinia*.

Abyſſinia. From this account it ſhould ſeem, that the *Sanc'háſuras* lived in the caves of mountains along the coaſt, while their king reſided in a cavern of the ſmall iſland *Suakem*, where there ſtill is a conſiderable town, in the middle of a large bay: he there, probably, concealed his plunder, and thence was reported to dwell in the ocean. The name of that iſland appears to have derived from *Sukhím*, the plural of *Sukh*, in *Hebrew*, and the *Sanc'h* of the *Hindus*; by the ancient geographers it is called both *Sukhœ*, and the *Harbour of preſerving Gods*, from the *preſervation*, I ſuppoſe, of *Sanc'ha-dwíp* and its inhabitants by the *divine* aſſiſtance of CRISHNA; who, with an army of deities, attacked and defeated SANC'HA'SURA, purſuing him even through the ſea, where he drew the monſter from his *ſhell*, and put him to death.

Beſides theſe firſt inhabitants of *Sanc'ha-dwípa*, who are deſcribed by the Mythologiſts as *elephants*, *dæmons*, and *ſnakes*, we find a race, called *S'hanc'háyanas*, who are the real *Troglodytes*, or *Shangalas*; for *la* is a regular termination of *Sanſcrit* adjectives, as *Bhágala*, fortunate; *Sin'hala*, lion-like; *Bengala*, which properly means *belonging* to the country of *Benga*: they were the deſcendants of ATRI before named, whoſe hiſtory, being cloſely connected with that of the *Sacred Iſles* in the weſt, deſerves peculiar attention. He ſprang, ſay the writers of the *Puránas* from the mind of BRAHMA', who appointed him a *Prajápati*, or *Lord of Creatures*, commanding him to produce a numerous race, and entruſting him with the *Védas*, which had exiſted eternally in the divine idea, that he might inſtruct his poſterity in their civil and religious duties. ATRI firſt repaired to a weſtern region, where he became the father of the lovely *Tabina-raſmi*, or *with dewy beams*: he thence paſſed into the country watered by the river *Sanc'ha-nága*, where proceeding to the *Sanc'ha-muc'ha* hills, he ſat on the *Swéta-giri*, or *White Mountain*, fixed in deep meditation on the author of his exiſtence. His arrival was quickly known throughout the country; and the few inhabitants of it came to worſhip him, bringing even their wives and daughters, that they might bear children by ſo holy a perſonage; but his days and nights being wholly devoted to contemplation and ſacred acts, his only time for dalliance was during the morning twilight: he became, however, the anceſtor of a conſiderable nation, who were diſtributed, like other *Hindus*, into the ſacerdotal, military, commercial, and ſervile claſſes.

His firſt-born SANC'HA'YANA had a fair complexion and great bodily ſtrength, but was irreligious, turbulent, and libidinous, eating forbidden fleſh, and living in the caverns of rocks; nor were his brethren and their offſpring better in the end than

than himſelf: thus the *Jews*, who have borrowed many *Indian* fables, which were current, I ſuppoſe, among their neighbours, inſiſt in their *Talmud*, that ADAM begat none but demons, till he was 150 years old *. The pious patriarch, deeply afflicted by the vices of his children, expoſtulated with them long in vain, and, ſeeing no remedy, contented himſelf with giving them the beſt advice; teaching them how to make more habitable caves in the mountains, *pallis*, or arbours under trees, and *ghóſhas*, or incloſures for their herds; permitting them to eat what they pleaſed; commanding them to dwell conſtantly on the mountains aſſigned to them, and to take particular care of the ſpot which their forefather had inhabited, calling it from his name *Atri-ſt'hán*. After this arrangement he left them, and went to the country near the *Sindhu*, or *Indus*, ſettling on the *Dévanícá* mountains; where he avoided the *morning twilight*, which had before been unproſperous, and produced a race eminent in virtue; for whom, when they multiplied, he built the famous city of *Nagara*, emphatically ſo called, and generally named *Déva-nagara*, which ſtood near the ſite of the modern *Cábul*.

Since the *Swéta-giri*, on which *Atri-ſt'hán* is declared to have ſtood, was at no great diſtance from the river *Sanc'ha-nága*, it is, moſt probably, the ſame with the *Amba-tzaada*, or White mountain, mentioned by Mr. BRUCE; who ſays, that it is the moſt conſiderable ſettlement of the *Shangalas*: it ſtands almoſt due north-weſt from *Dobarowa*, and is nearer by one-third to the *Mareb* than to the *Tacazzè*. The *pallis*, or arbours, of the *Shangalas*, are fully deſcribed by Mr. BRUCE, in a manner entirely conformable to the deſcriptions of them in the *Puránas*, except that they are not ſaid always to be covered with ſkins: the *Pallis* of *India* live ſtill in ſimilar arbours during the greateſt part of the year. That the *Sanc'háyanas* were the predeceſſors of the *Shangallas*, I have no doubt; though the former are ſaid to have white complexions, and the latter to be black; for, not to inſiſt, that the climate alone would, in a long courſe of years, effect a change of complexion; it is probable, that the race might be mixed, or that moſt of the old and genuine *Sanc'halas* might have been exterminated; and PLINY mentions a race of white *Ethiopians*, who lived to the weſt of the *Nile* †. Though *Atri-ſt'hán* be applied in the *Puráns* to the country alſo of the *Sanc'háyanas*, as well as to the ſtation of ATRI, yet the regular derivative from his name is *Atréyà*; and we find accordingly a part of *Ethiopia* named *Ætheria* by the *Greeks*, who called its inhabitants *Etherii*; and STRABO confines

* Eruvin, p. 18. † Lib. 5. cap. 70.

this

this appellation to a particular tribe, who ſeem to be the *Attiri* of PTOLEMY, and lived near the confluence of *Tacazzè* and the *Mareb* *: they were *Atréyas*, or deſcended from ATRI; but the *Greeks*, as uſual, referred a foreign epithet to a word in their own language. In the *Dionyſiacks* of NONNUS we read of Ἀειθερέος Μερόης, which is tranſlated *Meroe*, with *perpetual ſummer*; but, ſurely, the word can have no ſuch meaning; and *Meroe* muſt have been ſo named, becauſe it was once the capital of *Ætheria* †.

It appears from the *Puráns*, that the *Sanc'háyanas*, or old *Shangallas*, were not deſtitute of knowledge; and the *Bráhmens* admit, that they poſſeſſed a part at leaſt of the *Védas*.

IV. The hiſtory of the *Cut'ila-céſas*, or men with *curled-hair*, is diſguiſed in the following legend. SAGARA, an ancient monarch, who gave his name to the *ſágara* or *ocean*, was going to perform the *Aś'wamédha*, or *ſacrifice of a horſe*; when INDRA deſcended and ſtole the victim, which he conveyed to a place, near the mouth of the *Gangà*, where the ſage CAPILA was intent on his religious auſterities: the God of the firmament there tied the horſe by the ſide of the holy man, and retired unperceived by him. The monarch, miſſing the conſecrated horſe, diſpatched his *ſixty thouſand* ſons, or deſcendants, in ſearch of him: they roved over the whole earth, and, finding him at laſt near the manſion of CAPILA, accuſed him of the ſacrilege, and began to treat him with violence; but a flame iſſued from the eyes of the ſaint, which conſumed them all in an inſtant. Their father, being apprized of their death, ſent an army againſt CAPILA, who ſtood fixed to receive them; and, when they approached, unbound his *jat'à*, or *long plaited hair*, and, giving it a twiſt, ſtruck the ground twice or thrice with it, caſting an *oblique* glance of contempt on his adverſaries: in that moment an army of men with *curled hair* ſprang from the earth, attacked the legions of SAGAR, and defeated them. After their victory, they returned to the ſage, aſking who they were, and demanding a fit place of abode. CAPILA told them, that they were *Jatápat*, or produced by the *fall of his locks* on the ground; that from the *ſide lock*, which he had caſt on his enemies, their hair was *cut'lia*, or criſp; that they ſhould thence be called *Cut'ilas* and *Cut'ila-céſas*; that they muſt be *yát'-bata'hyas*, or live *as they were*, when produced by him, that is, always prepared for juſt war; that they muſt repair to *Sanc'ha-dwíp*, and form a ſettlement, in which they would encounter many difficulties, and be continually

* Strabo, B. 11. p. 82.

† Dionyſ. B. 17. v. 390.

haraſſed

haraſſed by bad neighbours; but that, when CRISHNA ſhould overpower and deſtroy SANC'HA'SURA, he would eſtabliſh their empire, and ſecure it from future moleſtation. They accordingly travelled through the interior *Cuſha-dwípa*, where the greateſt part of them choſe to remain, and received afterwards a terrible overthrow from PARAS'U-RA'MA: the others paſſed into *Sanc'ha-dwíp*, and ſettled on the banks of the *Cálì*: but having revolted againſt DE'VAṆAHUSHA, they were almoſt wholly extirpated by that potent monarch.

Violent feuds had long ſubſiſted between the family of GAUTAMA on one ſide, and thoſe of VISWA'MITRA and JAMADAGNI on the other; the kings of *Cuſha-dwíp within* took the part of GAUTAMA; and the *Haihayas*, a very powerful nation in that country (whom I believe to have been *Perſians)*, were inveterate againſt JAMADAGNI, whom they killed after defeating his army. Among the confederates in *Cuſha-dwípa* were the *Rómacas*, or dreſſed in *hair-cloth*; the *Sacas*, and a tribe of them called *Sacaſénas*; the *Hindus* of the *Cſhatriya* claſs, who then lived on the banks of the *Chacſhus*, or *Oxus*; the *Párafícas*, a nation *beyond* the *Nile*; the *Barbaras*, or people of *Nubia*; the inhabitants of *Cámbója*; the *Cirátas* and *Haritas*, two tribes of the *Pallis*; and the *Yavanas*, or anceſtors of the *Greeks*.—Theſe allies entered *India*, and defeated the troops of VISWA'MITRA, in the country called *Yudha-bhúmi*, or the Land of War, now *Yehud*, between the *Indus* and the *Behat*.

PARAS'U-RA'MA, the ſon of JAMADAGNI, but ſuppoſed afterwards to have been a *portion* of the divine eſſence in a human form, was enraged at the ſucceſs of the confederates, and circulated a publick declaration, that NA'RED had urged him to extirpate them entirely; aſſuring him, that the people of *Cuſha-dwípa*, who dwelt in the hollows of mountains, were *cravyádas*, or *carnivorous*; and that their King CRAVYA'DA'DHIPETI, or *Chief Ruler of Cannibals*, had polluted both *earth* and *water*, which were two of the eight *forms* of I'SA, with the mangled limbs and blood of the ſtrangers, whom he and his abominable ſubjects had cruelly devoured. After this proclamation, PARAS'U-RA'MA invaded *Cuſha-dwíp*, and attacked the army of CRAVYA'DA'DHIPETI, who ſtepped from the ranks, and challenged him to ſingle combat: they began with hurling rocks at each other; and RA'MA was nearly cruſhed under a mountain, thrown by his adverſary; but, having diſengaged himſelf, he darted huge ſerpents, which enfolded the giant in an inextricable maze, and at length deſtroyed him. The *blood* of the monſter formed the *Lohìta-c'han'da*, and that of his army, the *Lóhítódà*, or *river* with bloody *waters*: it is, I believe, the ADONIS of the ancients, now called *Nahru* IBRA'HI'M, the waters of which, at certain ſeaſons of

of the year, have a ſanguine tint. I ſuppoſe CRAVYA'DA'DHIPATI to be the LYCURGUS EDONOS of the *Greeks*, who reigned in *Paleſtine* and in the country around *Damaſcus*: his friend CAICE'YA, whom the *Greeks* called ORONTES, renewed the fight, and was alſo ſlain. Then came the King of the *Cut'ila-céſas*, and MAHA'SYA'MA, ruler of the *Syáma-muc'has*, and uſually reſiding in *Arvaſt'hán*, or *Arabia*; the former of whom I conceive to be BLEMYS; and the ſecond ARABUS, whom the *Greek* Mythologiſts alſo named OROBANDAS and ORUANDES: they fought a long time with valour, but were defeated; and, on their humiliating themſelves and imploring forgiveneſs, were allowed to retire, with the remains of their army, to the banks of the *Calì*, where they ſettled; while PARASU-RA'MA, having terminated the war in *Cuſha-dwípa*, returned to his own country, where he was deſtined to meet with adventures yet more extraordinary.

This legend is told nearly in the ſame manner by the poet NONNUS, a native of *Egypt*; who ſays, that, after the defeat of LYCURGUS, the *Arabs* yielded and offered ſacrifices to BACCHUS; a title corrupted from BHAGAVAT, or the *preſerving power*, of which a *ray* or *portion* had become incarnate in the perſon of PARASU-RAMA; he relates, that "BLEMYS, with *curled hair*, chief of the *ruddy*, or "*Erythrean Indians*, held up a bloodleſs olive branch with the ſupplicating troops, "and bowed a ſervile knee to DIONYSOS, who had ſlain his *Indian* ſubjects; that "the God, beholding him bent to the ground, took him by the hand and raiſed "him; but conveyed him, together with his many-tongued people, far from the "dark *Erythrean Indians* (ſince he abhorred the government and manners of DERI-"ADEUS), to the ſkirt of *Arabia*; that he, near the contiguous ocean, dwelt in the "happy region, and gave a name to the inhabitants of its towns; but that rapid "BLEMYS paſſed onward to the mouth of the *Nile* with ſeven branches, deſtined "to be cotemporary ruler over the people of *Ethiopia*; that the low ground of "*Etherian Meroë* received him as a chief, who ſhould leave his name to the *Blemyes* "born in ſubſequent ages *."

The emigration of the *Cut'ila-céſas* from *India* to *Egypt* is mentioned likewiſe by PHILOSTRATUS in his life of APOLLONIUS. When that ſingular man viſited the *Bráhmens*, who lived on the hills, to the north of *Srí-nagara*, at a place now called *Trilócí-nárá'ana* near the banks of the *Cédára-gangà*, the chief *Bráhmen*, whom he calls IARCHAS, gave him the following relation concerning the origin of the *Ethiopians*:

* Dionyſiac. B. 17. ver. 385—397.

 "They

" They reſided, ſaid he, formerly in this country, under the dominion of a king " named GANGES; during whoſe reign the Gods took particular care of them, and " the earth produced abundantly whatever was neceſſary for their ſubſiſtence; but, " having ſlain their king, they were conſidered by other *Indians* as defiled and abo- " minable. Then the ſeeds, which they committed to the earth, rotted; their wo- " men had conſtant abortions; their cattle was emaciated; and, wherever they " began to build places of abode, the ground ſank and their houſes fell: the ſpirit " of the murdered king inceſſantly haunted them, and would not be appeaſed until " the actual perpetrators of the murder had been buried alive; and even then the " earth forbad them to remain longer in this country. Their ſovereign, a ſon of " the river *Ganges*, was near ten cubits high, and the moſt majeſtick perſonage that " ever appeared in the form of man: his father had once very nearly overflowed " all *India*, but he directed the courſe of the waters towards the ſea, and rendered " them highly beneficial to the land; the goddeſs of which ſupplied him, while he " lived, with abundance, and fully avenged his death *." The baſis of this tale is unqueſtionably *Indian*, though it be clearly corrupted in ſome particulars: no *Bráhmen* was ever named *Iarchas*, which may be a corruption of *Arſha*, or *Arcſha*, or, poſſibly, of YASCA, the name of a ſage, who wrote a gloſſary for the *Védas*; nor was the *Ganges* ever conſidered as a *male* deity; but the ſon of GANGA', or GA'NGE'YA, was a celebrated hero. According to the *Hindu* legends, when CAPILA had deſtroyed the children of SAGARA, and his army of *Cut'ila-céſas* had migrated to another *dwípa*, the *Indian* monarch was long inconſolable; but his great grandſon BHAGI'RAT'HA conducted the preſent *Ganges* to the ſpot where the aſhes of his kindred lay; and they were no ſooner touched by the divine water, than the ſixty thouſand princes ſprang to life again: another ſtory is, that, when the *Ganges* and other great rivers were ſwoln to ſuch a degree, that the goddeſs of earth was apprehenſive of a general inundation, BHAGI'RAT'HA (leaving other holy men to take care of inferior rivers) led the *Ganges*, from him named *Bhágírat'hì*, to the ocean, and rendered her ſalutary to the earth, inſtead of deſtructive to it. Theſe tales are obviouſly the ſame in ſubſtance with that told by IARCHAS, but with ſome variations and additional circumſtances. APOLLONIUS moſt certainly had no knowledge of the *Indian* language; nor is it on the whole credible, that he was ever in *India* or *Ethiopia*, or even at *Babylon:* he never wrote an account of his travels; but the

* Philoſtr. Apollon. B. 3. ch. 6.

ſophiſt

ſophiſt PHILOSTRATUS, who ſeems to have had a particular deſign in writing the hiſtory of his life, might have poſſeſſed valuable materials, by the occaſional uſe of which he impoſed more eaſily on the publick. Some traveller might have converſed with a ſet of ignorant *Sannyáſis*, who had, what moſt of them now have, an imperfect knowledge of ancient legends concerning the *Dévaats*; and the deſcription, which PHILOSTRATUS gives, of the place in the hills, where the ſuppoſed *Bráhmens* reſided, correſponds exactly with a place called *Trilócí-nárâyana* in the *Puráns*, which has been deſcribed to me from the information of *Sannyáſis*, who ignorantly called it *Triyógi-nárâyan*; but, for a particular account of it, I muſt refer to a geographical and hiſtorical deſcription of the *Ganges* and the countries adjacent to it, which I have nearly completed.

The people named *Cutíla-céſas* are held by ſome *Bráhmens* to be the ſame with the *Háſyaſílas*, or at leaſt a branch of them; and ſome ſuppoſe, that the *Haſyaſílas*, are the before-mentioned remnant of the *Cutíla-céſas*, who firſt ſettled on the banks of the *Nile*, and, after their expulſion from *Egypt* by DE'VA-NAHUSHA, were ſcattered over the *African* deſerts; the *Gaituli*, or *Gaityli*, were of old the moſt powerful nation in *Africa*, and I ſhould ſuppoſe them to be deſcendants of the firſt *Cutílas* or *Cutils* (for ſo they are frequently called, eſpecially in converſation), who ſettled firſt near the *Cáli* river, and were alſo named *Háſyaſílas*; but they muſt have dwelt formerly in *Bengal:* if there be any hiſtorical baſis for the legend of CAPILA, who was performing acts of religious auſterity at the mouth of the *Ganges*, near old *Ságar*, or *Gangá*, in the *Sunderbans*. They were black and had curled hair, like the *Egyptians* in the time of HERODOTUS; but at preſent there are no ſuch negroes in *India*, except in the *Andaman* iſlands, which are now ſaid to be peopled by cannibals, as they were, according to PTOLEMY, at leaſt eighteen hundred years ago: from *Andaman* the *Greeks* made *Eudaimon*, and conceived it to be reſidence of a *good genius*. It is certain, that very ancient ſtatues of Gods in *India* have criſp hair, and the features of negroes: ſome have caps, or tiaras, with curls depending over their *foreheads*, according to the preciſe meaning of the epithet *Cutílálaca*; others, indeed, ſeem to have their locks curled by art, and braided above in a thick knot; but I have ſeen many idols, on which the woolly appearance of the hair was ſo well repreſented as to preclude all doubt; and we may naturally ſuppoſe, that they were made by the *Cutílacéſas*, when they prevailed in this country. The *Bráhmens* aſcribe theſe idols to the *Bauddhas*, and nothing can hurt them more, than to ſay that

any

any of their own Gods had the figure of *Habaſhis*, or negroes; and even the hair of BUDBHA himſelf, for whom they have no ſmall degree of reſpect, they conſider as twiſted in braids, like that of ſome modern *Sannyáſis*; but this will not account for the thick lips and flat noſes of thoſe ancient images; nor can it reaſonably be doubted, that a race of negroes formerly had power and pre-eminence in *India*. In ſeveral parts of *India*, the mountaineers have ſtill ſome reſemblance to negroes in their countenance and hair, which is curled, and has a tendency to wool: it is very probable, that, by intermarriages with other outcaſts, who have black complexions but ſtraight hair, they have changed in a courſe of ages, like the *Cut'ila-céſas*, or old *Egyptians*; for the modern *Copts* are far from anſwering to the deſcription given by HERODOTUS, and their features differ conſiderably from thoſe of the mummies, and of ancient ſtatues brought from *Egypt*, whence it appears, that their anceſtors had large eyes with a long ſlit, projecting lips, and folded ears of a remarkable ſize.

V. Of the *Syáma-muc'has*, who migrated from *India*, the origin is not yet perfectly known; but their faces were black, and their hair ſtraight, like that of the *Hindus*, who dwell on the plains: they were, I believe, the *ſtraight-haired Ethiops* of the ancients *, and their king, ſurnamed MAHA'SYA'MA, or the *Great Black*, was probably the king ARABUS, mentioned by the *Greek* Mythologiſts, who was cotemporary with NINUS. They were much attached to the *Cut'ila-céſas*, whence we may infer, that the religious tenets of the two nations were nearly the ſame. It is believed, that they were the firſt inhabitants of *Arva-ſt'hán*, or *Arabia*; but paſſed thence into *Africk*, and ſettled on the banks of the *Nile*: the part of *Egypt*, which lies to the eaſt of that river, is by ſome conſidered as part of *Arabia*; and the people who lived between the *Mediterranean* and *Meroë*, were by JUBA ſaid to be *Arabs*.

VI. The firſt origin of the *Dánavas*, or Children of DANU, is as little known as that of the tribe laſt mentioned; but they came into *Egypt* from the weſt of *India*; and their leader was BELI, thence named DA'NAVE'NDRA, who lived at the time when the *Padma-mandira* was erected on the banks of the *Cumudvatí*: the *Dánavas*, whom he governed, are frequently mentioned in the *Puránas* among the inhabitants of countries adjacent to the *Cálì*.

As to the *Strí-rájya*, or country *governed by women*, the *Hindus* aſſert, that the ſovereign of it was always a Queen, and that all her officers, civil and military, were

* Ἰθύτριχες. Herod. Polyhymn.

females,

females, while the great body of the nation lived as in other countries; but they have not in this reſpect carried the extravagance of fable to the ſame pitch with the *Greeks* in their accounts of the *Amazons:* it is related in the *Maillári Máhátmya*, that, when RA'VANA was apprehenſive of being totally defeated, he ſent his wives to diſtant countries, where they might be ſecure; that they firſt ſettled on the *Indian* peninſula near the ſite of *Srírangapattana*, or *Seringapatnam*, but that, being diſturbed in that ſtation, part of them proceeded to the north of *Dwáracà* in *Gujarát*, and part into *Sànc'ha-dwípa*, where they formed a government of women, whence their ſettlement was called *Stríràjya*. It was on the ſea-ſhore near the *Cula* mountains, extending about forty *yójanas* in length, and ſurrounded by low ſwampy grounds, named *Jalabhúmi*, in *Sanſcrit*, and *Daldal* in the vulgar idiom: *Stríràjya*, therefore, muſt be the country of *Sabá*, now *Aſſab*, which was governed by a celebrated Queen, and the land round which has to this day the name of *Taltal*. The *Cula* mountains are that range which extends from *Dobarowa*, the *Coloë* of the ancient geographers, to the ſource of the *Tacazzè*, which PTOLEMY calls the marſh of *Coloë*; a word which I ſuppoſe to be derived from the *Sanſcrit*.

VII. Yavana is a regular participial form of the root *yu*, to *mix*; ſo that *yavana*, like *miſra*, might have ſignified no more than a *mingled* people; but, ſince *yoni*, or the *female nature*, is alſo derived from the ſame root, many *Pandits* inſiſt, that the *Yavanas* were ſo named from their obſtinate aſſertion of a ſuperior influence in the *female*, over the *linga*, or *male nature*, in producing a perfect offſpring. It may ſeem ſtrange, that a queſtion of mere phyſiology ſhould have occaſioned not only a vehement religious conteſt, but even a bloody war; yet the fact appears to be hiſtorically true, though the *Hindu* writers have dreſſed it up, as uſual, in a veil of extravagant allegories and myſteries, which we ſhould call obſcene, but which they conſider as awfully ſacred. They repreſent NA'RA'YANA *moving*, as his name implies, *on the waters*, in the character of the *firſt male*, and the *principle* of all nature, which was wholly ſurrounded in the beginning by *tamas*, or *darkneſs*, the *Chaos* and primordial *Night* of the *Greek* Mythologiſts, and, perhaps, the *Thaumaz*, or *Thamas*, of the ancient *Egyptians:* the *Chaos* is alſo called PRACRĬTI, or crude Nature, and the male deity has the name of PURUSHA, from whom proceeded *Sacti*, or *power*, which, when it is aſcribed to the earth, in contradiſtinction to the waters, is denominated *A'dhára S'acti*, or, the *power of containing* or *conceiving*; but that *power* in its firſt ſtate was rather a *tendency* or *aptitude*, and lay dormant or inert until

until it was excited by the *bíja*, or vivifying principle of the plaſtick ĺSWARA. This *power*, or aptitude of nature, is repreſented under the ſymbol of the *yóni*, or *bhaga*, while the *animating principle* is expreſſed by the *linga:* both are united by the creative power, BRAHMA'; and the *yóni* have been called the *navel* of VISHNU, not identically, but nearly; for, though it is held in the *Védánta*, that the divine ſpirit penetrates or pervades all nature, and though the *Sacti* be conſidered as an emanation from that ſpirit, yet the emanation is never wholly detached from its ſource, and the penetration is never ſo perfect as to become a total union or identity. In another point of view BRAHMA' correſponds with the *Chronos*, or Time, of the *Greek* mythologiſts; for through him generations paſs on ſucceſſively, ages and periods are by him put in motion, terminated, and renewed, while he dies and ſprings to birth alternately; his exiſtence or energy continuing for an hundred of *his* years, during which he produces and devours all beings of leſs longevity. VISHNU repreſents *water*, or the humid principle; and ISWARA, *fire*, which recreates or deſtroys, as it is differently applied: PRIT'HIVI', or *earth*, and *Ravi*, or the Sun, are ſeverally *trimúrtis*, or *forms* of the *three* great powers acting jointly and ſeparately, but with different natures and energies, and by their mutual action, excite and expand the rudiments of material ſubſtances. The word *murti*, or form, is exactly ſynonymous with εἴδωλον; and, in a ſecondary ſenſe, means an image; but, in its primary acceptation, it denotes any *ſhape*, or *appearance* aſſumed by a celeſtial being: our *vital ſouls* are, according to the *Védánta*, no more than *images*, or εἴδωλα, of the *ſupreme ſpirit*, and HOMER places the *idol* of HERCULES in *Elyſium* with other deceaſed heroes, though the God himſelf was at the ſame time enjoying bliſs in the heavenly manſions. Such a *múrti*, ſay the *Hindus*, can by no means affect with any ſenſation, either pleaſing or painful, the being from which it emaned; though it may give pleaſure or pain to collateral emanations from the ſame ſource: hence they offer no ſacrifices to the ſupreme Eſſence, of which our own ſouls are *images*, but adore him with ſilent meditation; while they make frequent *homás*, or *oblations*, to fire, and perform acts of worſhip to the *Sun*, the *Stars*, the *Earth*, and the powers of *Nature*, which they conſider as *múrtis*, or images, the ſame in kind with ourſelves, but tranſcendently higher in degree. The Moon is alſo a great object of their adoration; for, though they conſider the Sun and Earth as the two grand agents in the ſyſtem of the univerſe, yet they know their reciprocal action to be greatly affected by the influence of the lunar orb according to their ſeveral aſpects, and ſeem even

even to have an idea of *attraction* through the whole extent of nature. This ſyſtem was known to the ancient *Egyptians*; for according the DIODORUS *, their VULCAN, or *elemental fire*, was the great and powerful deity, whoſe influence contributed chiefly toward the generation and perfection of natural bodies; while the ocean, by which they meant *water* in a collective ſenſe, afforded the nutriment that was neceſſary; and the *Earth* was the vaſe, or capacious receptacle, in which this grand operation of nature was performed: hence ORPHEUS deſcribed the earth as the *univerſal Mother*; and this is the true meaning of the *Sanſcrit* word *Ambá*. Such is the ſyſtem of thoſe *Hindus*, who admit an equal concurrence of the two principles; but the declared followers of VISHNU profeſs very different opinions from thoſe adopted by the votaries of ISWARA: each ſect alſo is ſubdivided according to the *degree* of influence, which ſome of them allow to be poſſeſſed by that principle, which on the whole they depreciate; but the pure *Vaiſhnavas* are in truth the ſame with the *Yónijas*, of whom we ſhall preſently give a more particular account.

This diverſity of opinion ſeems to have occaſioned the general war, which is often mentioned in the *Puránas*, and was celebrated by the poets of the Weſt, as the baſis of the *Grecian* Mythology: I mean that between the Gods, led by JUPITER, and the Giants, or *Sons of the Earth*; or, in other words, between the followers of ISWARA and the *Yónijas*, or men produced, as they aſſerted, by PRIT'HIVI, a *power* or *form* of VISHNU; for NONNUS expreſsly declares † that the war in queſtion aroſe between the partizans of JUPITER and thoſe *who acknowledged no other deities but Water and Earth*: according to both NONNUS and the *Hindu* Mythologiſts, it began in *India*, whence it was ſpread over the whole globe, and all mankind appear to have borne a part in it.

Theſe religious and phyſiological conteſts were diſguiſed, in *Egypt* and *India*, under a veil of the wildeſt allegories and emblems. On the banks of the *Nile*, OSIRIS was torn in pieces; and on thoſe of the *Ganges*, the limbs of his conſort I'SI' or SATTI', were ſcattered over the world, giving names to the places where they fell, and where they ſtill are ſuperſtitiouſly worſhipped: in the book entitled *Mahá calá ſanhitá*, we find the *Grecian* ſtory concerning the wanderings of DAMATER, and the lamentations of BACCHUS; for ISWARA, having been mutilated, through the imprecations of ſome offended *Munis*, rambled over the whole earth, bewailing his misfortune; while I'SI' wandered alſo through the world ſinging mournful ditties

* Diod. Sic. B. 1.

† Dionys. B. 34. v. 241.

in

in a ſtate of diſtraction. There is a legend in the *Servaraſa*, of which the figurative meaning is more obvious. When SATI', after the cloſe of her exiſtence as the daughter of DACSHA, ſprang again to life in the character of PA'RVATI', or *Mountain-born*, ſhe was reunited in marriage to MAHA'DE'VA: this divine pair had once a diſpute on the comparative influence of the ſexes, in producing animated beings, and each reſolved, by mutual agreement, to create apart a new race of men. The race produced by MAHA'DE'VA was very numerous, and devoted themſelves excluſively to the worſhip of the male deity; but their intellects were dull, their bodies feeble, their limbs diſtorted, and their complexions of different hues: PA'RVATI' had at the ſame time created a multitude of human beings who adored the female power only, and were all well ſhaped, with ſweet aſpects, and fine complexions. A furious conteſt enſued between the two races, and the *Lingajas* were defeated in battle; but MAHA'DE'VA, enraged againſt the *Yónijas*, would have deſtroyed them with the fire of his eye, if PA'RVATI' had not interpoſed and appeaſed him; but he would ſpare them only on condition, that they ſhould inſtantly leave the country with a promiſe to ſee it no more; and from the *yóni*, which they adored as the ſole cauſe of their exiſtence, they were named *Yavanas*. It is ſaid, in another paſſage, that they ſprang from the Cow SAVILA'; but that cow was an incarnation of the goddeſs I'SI'; and here we find the *Egyptian* legend, adopted by the *Greeks*, of Io and ISIS. After their expulſion, they ſettled, according to the *Puránas*, partly on the borders of *Varáha-dwíp*, and partly in the two *dwípas* of CUSHA', where they ſupported themſelves by predatory excurſions and piracy, and uſed to conceal their booty in the long graſs of *Cuſha*-dwíp *within*; but PA'RVATI' conſtantly protected them; and, after the ſevere puniſhment of their revolt againſt DE'VA-NAHU'SH, or DIONYSIUS, gave them a fine country, where, in a ſhort time, they became a flouriſhing nation. Thoſe *Yavanas*, who remained in the land of CUSHA, and on the banks of the *Cálì*, were perhaps the *Hellenick* ſhepherds mentioned in *Egyptian* hiſtory; and it is probable that great part of thoſe who had revolted againſt DIONYSIUS, retired after their defeat into *Greece*; all the old founders of colonies in that country had come originally from *Egypt*; and even the *Athenians* admitted, that their anceſtors formerly reſided in the diſtricts round *Saïs*.

It is evident, that the ſtrange tale in the *Servaraſa* was invented to eſtabliſh the opinion of the *Yónyancitas*, or votaries of DE'VI', that the good ſhape, ſtrength, and courage of animals depend on the ſuperior influence of the female parent, whoſe powers are only excited and put into action by the male *aura*; but the *Linganeitas* maintain

maintain an oppoſite doctrine, and the known ſuperiority of mules begotten by horſes, over thoſe which are brought forth by mares, appears to confirm their opinion, which might alſo be ſupported by many other examples from the animal and vegetable worlds. There is a ſect of *Hindus*, by far the moſt numerous of any, who, attempting to reconcile the two ſyſtems, tell us, in their allegorical ſtyle, that PA'RVATI' and MAHA'DE'VA found their concurrence eſſential to the perfection of their offspring, and that VISHNU, at the requeſt of the goddeſs, effected a reconciliation between them; hence the *navel* of VISHNU, by which they mean the *os tincæ*, is worſhipped as one and the ſame with the ſacred *yóni*. This emblem too was *Egyptian*; and the myſtery ſeems to have been ſolemnly typified, in the temple of JUPITER AMMON, by the vaſt *umbilicus* made of ſtone, and carried by eighty men in a *boat*, which repreſented the *foſſa navicularis*: ſuch, I believe, was the myſtical *boat* of ISIS, which, according to LACTANTIUS, was adored in *Egypt* *; we are aſſured by TACITUS, that the *Suevi*, one of the oldeſt and moſt powerful *German* nations, worſhipped ISIS in the form of a ſhip; and the *Chaldeans* inſiſted, that the *Earth*, which, in the *Hindu* ſyſtem, repreſents PA'RVATI', was ſhaped and hollowed like an immenſe *boat*. From *Egypt* the type was imported into *Greece*; and an *umbilicus* of white marble was kept at *Delphi* in the ſanctuary of the temple, where it was carefully wrapt up in cloth †. The myſtical *boat* is called alſo, by *Greek* Mythologiſts, the *cup* of the Sun, in which HERCULES, they ſay, traverſed the Ocean; and this HERCULES, according to them, was the ſon of JUPITER; but the *Greeks*, by whom the notion of an *avatára*, or *deſcent* of a God in a human form, had not been generally adopted, conſidered thoſe as the *ſons*, whom the *Hindus* conſider as *incarnate rays* or *portions*, of their ſeveral deities: now JUPITER was the ISWARA of the *Hindus*, and the OSIRIS of the *Egyptians*; and HERCULES was an *avatára* of the ſame divinity, who is figured, among the ruins of *Luxorein*, in a *boat*, which eighteen men bear on their ſhoulders. The *Indians* commonly repreſent this myſtery of their phyſiological religion by the emblem of a *Nymphœa*, or Lotos, *floating like a boat* on the boundleſs ocean; where the whole plant ſignifies both the Earth and the two principles of its fecundation: the *germ* is both *Méru* and the *linga*; the *petals* and *filaments* are the mountains which encircle *Méru*, and are alſo a type of the *yóni*; the leaves of the *calyx* are the *four* vaſt regions to the cardinal points of *Méru*, and the *leaves* of the plants are the *dwípas* or iſles,

* Lactant. Divin. Inſtit. L. 1. c. 2. † Strab. B. 9. 420.

round the land of *Jambu*. Another of their emblems is called *Argha*, which means a *cup* or *diſh*, or any other *veſſel*, in which *fruit* and *flowers* are offered to the deities; and which *ought* always to be *ſhaped like a boat*, though we now ſee *arghas* of many different forms, oval, circular, or ſquare; and hence it is that ISWARA has the title of *Arghánát'ha*, or the *Lord of the boat-ſhaped veſſel:* a rim round the *argha* repreſents the myſterious *yóni*, and the *navel* of VISHNU is commonly denoted by a convexity in the centre, while the contents of the veſſel are ſymbols of the *linga*. This *argha*, as a type of the *ádhára-śacti*, or *power of conception*, excited and vivified by the *linga*, or *Phallus*, I cannot but ſuppoſe to be one and the ſame with the ſhip *Argo*, which was built, according to ORPHEUS, by JUNO and PALLAS, and according to APOLLONIUS, by PALLAS and ARGUS at the inſtance of JUNO *: the word *Yóni*, as it is uſually pronounced, nearly reſembles the name of the principal *Hetruſcan* Goddeſs, and the *Sanſcrit* phraſe *Arghanát'ha* ISWARA ſeems accurately rendered by PLUTARCH, when he aſſerts that OSIRIS was commander of the *Argo* †. I cannot yet affirm, that the words *p'hala*, or *fruit*, and *p'hulla*, or a *flower*, have ever the ſenſe of *Phallus*; but fruit and flowers are the chief oblations in the *argha*, and *trip'hala* is a name ſometimes given, eſpecially in the weſt of *India*, to the *triſúla*, or trident, of MAHA'DE'VA: in an eſſay on the geographical antiquities of *India* I ſhall ſhow, that the JUPITER *Triphylius* of the *Panchœan* iſlands was no other than SIVA holding a *trip'hala*, who is repreſented alſo with *three eyes*, to denote a triple energy, as VISHNU and PRIT'HIVI' are ſeverally typified by an equilateral *triangle* (which likewiſe gives an idea of *capacity*), and conjointly, when their powers are ſuppoſed to be combined, by two ſuch equal triangles interſecting each other.

The three ſects, which have been mentioned, appear to have been diſtinct alſo in *Greece*. 1. According to THEODORET, ARNOBIUS, and CLEMENS of *Alexandria*, the *Yóni* of the *Hindus* was the ſole object of veneration in the myſteries of *Eleuſis:* when the people of *Syracuſe* were ſacrificing to goddeſſes, they offered cakes in a certain ſhape, called μύλλοι; and in ſome temples, where the prieſteſſes were probably ventriloquiſts, they ſo far impoſed on the credulous multitude, who came to adore the *yóni*, as to make them believe that it ſpoke and gave oracles. 2. The rites of the *Phallus* were ſo well known among the *Greeks*, that a metre, conſiſting of three trochees only, derived its name from them: in the opinion of

* Orph. Argon. v. 66. Apoll. Rhod. B. 2. v. 1190.

† Pluto on *Iſis* and *Oſiris*.

thoſe

thoſe who compiled the *Purânas*, the *Phallus* was firſt publickly worſhipped, by the name of *Bálêſwara-linga*, on the banks of the *Cumudvati*, or *Euphrates*; and the *Jews*, according to *Rabbi* AEHA, ſeem to have had ſome ſuch idea, as we may collect from their ſtrange tale concerning the different earths which formed the body of ADAM *. 3. The middle ſect, however, which is now prevalent in *India*, was generally diffuſed over ancient *Europe*; and was introduced by the *Pelargi*, who were the ſame, as we learn from HERODOTUS, with the *Pelaſgi*. The very word *Pelargos*, was probably derived from *P'hala* and *Argha*, thoſe myſterious types, which the later mythologiſts diſguiſed under the names of PALLAS and ARGO; and this conjecture is confirmed by the rites of a deity, named PELARGA, who was worſhipped near *Thebes* and *Bœotia*, and to whom, ſays PAUSANIAS, no victim was offered but *a female recently covered and impregnated*; a cruel ſacrifice, which the *Indian* law poſitively forbids, but which clearly ſhows the character of the goddeſs to whom it was thought acceptable. We are told, that her parents were POTNEUS and ISTHMIAS, or BACCHUS and INO (for the *Bacchantes* were called alſo *Potniades*), by whom we cannot but underſtand OSIRIS and ISIS, or the ISWARA and ISI of the *Hindus*. The three words *Ambà*, *Nábhi*, and *Argha*, ſeem to have cauſed great confuſion among the *Greek* Mythologiſts, who even aſcribed to the Earth all the fanciful ſhapes of the *Argha*, which was intended at firſt as a mere emblem: hence they repreſented it in the ſhape of a *boat*, of a *cup*, or of a quoit with a boſs in the centre, ſloping towards the circumference, where they placed the ocean; others deſcribed it as a ſquare or a parallelogram †, and *Greece* was ſuppoſed to lie on the ſummit, with *Delphi* in the *navel*, or central part, of the whole ‡; as the *Jews* and even the firſt *Chriſtians*, inſiſted that the true *navel* of the earth was *Jeruſalem*; and as the *Muſelmans* hold *Mecca* to be the *Mother of Cities*, and the *náfi zemìn*, or Earth's *navel*. All theſe notions appear to have ariſen from the worſhip, of which we have been treating: the *yóni* and *nábhi*, or navel, are together denominated *ambà*, or *mother*; but gradually the words *ambà*, *nábhi*, and *argha*, have become ſynonymous; and as ὀμφὴ and *umbo* ſeem to be derived from *Ambà*, or the circular *argha* with a boſs like a target, ſo ὄμφαλος and *umbilicus* apparently ſpring from the ſame root, and even the word *navel*, though originally *Gothick*, was the ſame anciently with *nábhi* in *Sanſcrit*, and *náf* in *Perſian*. The ſacred *ancilia*, one of which was revered as the *Palladium* of *Rome*, were probably types of a ſimilar

* Gemara Sanhedrin, C. 30. cited by *Ryland*.

† Agathem. B. 1. c. 1.

‡ Pind. Pyth. 6. Eurip. Ion. v. 233. Cleomedes, B. 1.

nature

nature to the *argha*, and the ſhields, which uſed to be ſuſpended in temples, were poſſibly votive *ambás*. At *Delphi* the myſtick *Omphalos* was continually celebrated in hymns as a *ſacred pledge* of divine favour, and the *navel of the world:* thus the myſtick boat was held by ſome of the firſt emigrants from *Aſia* to be their palladium, or pledge of ſafety, and, as ſuch, was carried by them in their various journeys; whence the poets feigned, that the ARGO was borne over mountains on the ſhoulders of the *Argonauts*. I know how differently theſe ancient emblems of the *Hindus*, the Lotus and mount *Méru*, the *Argha*, or ſacred veſſel, and the name *Arghanát'ha*, would have been applied by Mr. BRYANT; but I have examined both applications without prejudice, and adhere to my own as the more probable, becauſe it correſponds with the known rites and ceremonies of the *Hindus*, and is confirmed by the oldeſt records of their religion.

Such have been, according to the *Puránas*, the various emigrations from *India* to *Cuſhadwíp*; and hence part of *Africa* was called *India* by the *Greeks:* the *Nile*, ſays THEOPHYLACT, flows through *Lybia*, *Ethiopia*, and *India* *; the people of *Mauritania* are ſaid, by STRABO, to have been *Indians* or *Hindus* †; and *Abyſſinia* was called Middle *India* in the time of MARCO PAOLO. Where OVID ſpeaks of ANDROMEDA, he aſſerts, that ſhe came from *India*; but we ſhall ſhow, in another ſection, that the ſcene of her adventures was the region adjacent to the *Nile:* the country between the *Caſpian* and the *Euxine* had the names both of *India* and *Ethiopia*; even *Arachoſia* is called White *India* by ISIDORUS; and we have already mentioned the Yellow *India* of the *Perſian*, and the Yellow *Indians* of the *Turkiſh*, geographers. The moſt venerable emigrants from *India* were the *Yádavas:* they were the *blameleſs* and pious *Ethiopians*, whom HOMER mentions, and calls the *remoteſt* of *mankind*. Part of them, ſay the old *Hindu* writers, remained in this country; and hence we read of two *Ethiopian* nations, the Weſtern and the Oriental: ſome of them lived far to the eaſt, and they are the *Yádavas*, who ſtayed in *India*; while others reſided far to the weſt, and they are the ſacred race, who ſettled on the ſhores of the *Atlantick*. We are poſitively aſſured by HERODOTUS, that the oriental *Ethiopians* were *Indians*; and hence we may infer, that *India* was known to *Greeks*, in the age of HOMER, by the name of eaſtern *Ethiopia:* they could not then have known it by the appellation of *India*, becauſe that word, whatever may be its original meaning, was either framed or corrupted by the *Perſians*, with whom,

* B. 7. c. 17. † B. 17. p. 828.

as

as long as their monarchs remained ſatisfied with their own territories, the *Greeks* had no ſort of connection. They called it alſo the land of *Panchæa*, but knew ſo little of it, that, when they heard of *India*, through their intercourſe with the *Perſians*, they ſuppoſed it to be quite a different country. In *Perſian*, the word *Hindu* means both an *Indian* and any thing *black*, but whether, in the latter ſenſe, it be uſed metaphorically, or was an adjective in the old language of *Perſia*, I am unable to aſcertain: it appears from the book of ESTHER, that *India* was known to the *Hebrews* in *Perſia* by the name of *Hodu*, which has ſome reſemblance to the word *Yadu*, and may have been only a corruption of it. *Hindu* cannot regularly be derived, as an *Engliſh* writer has ſuggeſted, from a *Sanſcrit* name of the moon, ſince that name is INDU; but it may be corrupted from *Sindhu*, or the *Indus*, as a learned *Bráhmen* has conjectured, for the hiſſing letter is often changed into an aſpirate; and the *Greek* name for that river ſeems to ſtrengthen his conjecture. Be it as it may, the words *Hindu* and *Hinduſt'hán* occur in no *Sanſcrit* book of great antiquity; but the epithet *Haindava*, in a derivative form, is uſed by the poet CA'LIDA'S: the modern *Bráhmens*, when they write or ſpeak *Sanſcrit*, call themſelves *Hindus*; but they give the name of *Cumára-c'handa* to their country on both ſides the *Ganges*, including part of the peninſula, and that of *Nága-c'handa* to the diſtricts bordering on the *Indus*.

Next to the emigration of the *Yádavas*, the moſt celebrated was that of the *Pális*, or *Páliputras*; many of whoſe ſettlements were named *Páliſt'hán*, which the *Greeks* changed into *Palaiſtinè*: a country ſo called was on the banks of the *Tigris*, and another in *Syria*; the river *Strymon* had the epithet *Palaiſtinos*; in *Italy* we find the *Peleſtini*, and, at the mouth of the *Po*, a town called *Philiſtina*; to which may be added the *Philiſtinæ foſſiones*, and the *Paleſtinæ arenæ* in *Epirus*. As the *Greeks* wrote *Palai* for *Páli*, they rendered the word *Paliputra* by *Palaigonos*, which alſo means the offſpring of *Páli*; but they ſometimes retained the *Sanſcrit* word for *ſon*, and the town of *Palaipatrai*, to this day called *Paliputra* by the natives, ſtood on the ſhore of the *Helleſpont*: theſe diſquiſitions, however, would lead me too far; and I proceed to demonſtrate the ancient intercourſe between *Egypt* and *India*, by a faithful epitome of ſome mythological and aſtronomical fables which were common to both thoſe countries.

SECTION

SECTION THE SECOND.

OSIRIS, or, more properly, YSIRIS, according to HELLANICUS, was a name uſed in *Egypt* for the Supreme Being *; in *Sanſcrit* it ſignifies Lord, and, in that ſenſe, is applied by the *Bráhmens* to each of their three principal deities, or rather to each of the principal *forms*, in which they teach the people to adore BRAHM, or the Great One; and, if it be appropriated in common ſpeech to MAHA'DE'VA, this proceeds from the zeal of his numerous votaries, who place him above their two other divinities. BRAHMA', VISHNU, and MAHA'DE'VA, ſay the *Pauránics*, were brothers; and the *Egyptian* Triad, or OSIRIS, HORUS, and TYPHON, were brought forth by the ſame parent, though HORUS was believed to have ſprung from the myſterious embraces of OSIRIS and ISIS before their birth; as the *Vaiſhnavas* alſo imagine, that HARA, or MAHA'DE'VA, ſprang myſtically from his brother HERI, or VISHNU. In the *Hindu* mythology BRAHMA' is repreſented of a red, VISHNU, of a black, or dark azure, and HARA of a white, complexion; but in that of *Egypt*, we find OSIRIS black, HORUS white, and TYPHON red: the indiſcriminate application of the title ISWARA has occaſioned great confuſion in the accounts, which the *Greeks* have tranſmitted to us, of *Egyptian* Mythology; for the prieſts of *Egypt* were very reſerved on ſubjects of religion, and the *Grecian* travellers had in general too little curioſity to inveſtigate ſuch points with ſcrupulous exactneſs: ſince OSIRIS, however, was painted *black*, we may preſume, that he was VISHNU, who, on many occaſions, according to the *Puránas*, took *Egypt* under his ſpecial protection. CRISHNA' was VISHNU himſelf, according to the moſt orthodox opinion; and it was he, who viſited the countries adjacent to the *Nile*, deſtroyed the tyrant SANC'HA'SURA, introduced a more perfect mode of worſhip, cooled the conflagrations, which had repeatedly deſolated thoſe aduſt regions, and eſtabliſhed the government of the *Cutila-céſas*, or genuine *Egyptians*, on a permanent baſis: thus OSIRIS, as we are told by PLUTARCH, taught the old *Egyptians* to make laws and to honour the Gods. The title *Srí-Bhagavat*, importing *proſperity* and *dominion*, is given peculiarly to CHRISHNA', or the *black* deity, and the black OSIRIS had alſo the titles of *Sirius*, *Seirius*, and *Bacchus*. It is related, indeed, that OSIRIS, or BACCHUS, imported from *India* the worſhip of two divine Bulls; and, in this character, he

* Plut. on *Iſis* and *Oſiris*.

was

was MAHA'DE'VA, whoſe followers were pretty numerous in *Egypt*: for HERMAPION, in his explanation of the hieroglyphicks on the *Heliopolitan* obeliſk, calls HORUS the Supreme *Lord*, and the author of *Time* *: now ISWARA, or *Lord*, and CA'LA, or *Time*, are among the diſtinguiſhed titles of MAHA'DE'VA; and obeliſks or pillars, whatever be their ſhape, are among his emblems. In the *Vrihad-haima*, which appears to contain many curious legends concerning *Egypt*, it is expreſsly ſaid, that "ISWARA, with his conſort PA'RVATI', deſcended from heaven, and "choſe for his abode the land of *Miſra* in *Sanc'ha-dwip*." We muſt obſerve, that the *Egyptians* feared and abhorred TYPHON, or MAHA'DE'VA in his character of *the Deſtroyer*; and the *Hindus* alſo dread him in that character, giving him the name of *Bhairava*, or *Tremendous*: the *Egyptian* fable of his attempt *to break the Mundane Egg* is applied to MAHA'DE'VA in the little book *Chandì*, which is chiefly extracted from the *Márcandéya Purán*. There is a ſtriking reſemblance between the legendary wars of the three principal Gods in *Egypt* and *India*; as OSIRIS gave battle to TYPHON, who was defeated at length, and even killed by HORUS, ſo BRAHMA' fought with VISHNU and gained an advantage over him, but was overpowered by MAHA'DE'VA, who cut off one of his five heads; an allegory, of which I cannot pretend to give the meaning.

PLUTARCH aſſerts, that the prieſts of *Egypt* called the Sun *their Lord and King*; and their three Gods reſolve themſelves ultimately into him alone: OSIRIS was the Sun; HORUS was the Sun; and ſo, I ſuppoſe, was TYPHON, or the *power of deſtruction by heat*, though PLUTARCH ſays gravely, that *ſuch as maintained that opinion, were not worthy to be heard*. The caſe was nearly the ſame in ancient *India*; but there is no ſubject on which the modern *Bráhmens* are more reſerved; for when they are cloſely interrogated on the title of *Déva*, or God, which their moſt ſacred books give to the ſun, they avoid a direct anſwer, have recourſe to evaſions, and often contradict one another and themſelves: they confeſs, however, unanimouſly, that the Sun is an emblem, or image, of their three great deities jointly and individually, that is, of BRAHM, or the Supreme One, *who alone exiſts really and abſolutely*, the three male divinities themſelves being only *Máyà*, or illuſion. The body of the ſun they conſider as *Máyà*; but, ſince he is the moſt glorious and active emblem of GOD, they reſpect him as an object of high veneration. All this muſt appear very myſterious; but it flows from the principal tenet of the *Védántis*, that

* Ammian. Marcellin.

the

the only being which has abſolute and real exiſtence, is the divine ſpirit, infinitely wiſe, infinitely benign, and infinitely powerful, expanded through the univerſe, not merely as the *ſoul of the world*, but as the *provident ruler* of it, ſending forth rays or emanations from his own eſſence, which are the pure vital ſouls of all animated creatures, whether *moveable* or *immoveable*, that is (as we ſhould expreſs ourſelves), both *animals* and *vegetables*, and which he calls back to himſelf, according to certain laws eſtabliſhed by his unlimited wiſdom; though *Brahmă* be neuter in the character of the Moſt High One, yet, in that of *Supreme Ruler*, he is named PARAME'SWARA; but though the infinite veneration, to which he is entitled, the *Hindus* meditate on him with ſilent adoration, and offer prayers and ſacrifices only to the higher emanations from him. In a mode incomprehenſible to inferior creatures, they are involved at firſt in the gloom of *Máyà*, and ſubject to various taints from attachment to worldly affections; but they can never be reunited to their ſource, until they diſpel the illuſion by ſelf-denial, renunciation of the world, and intellectual abſtractions, and until they remove the impurities which they have contracted, by repentance, mortification, and ſucceſſive paſſages through the forms of animals or vegetables according to their demerits: in ſuch a reunion conſiſts their final beatitude, and to effect it by the beſt poſſible means is the object of their ſupreme ruler; who, in order to reclaim the vicious, to puniſh the incorrigible, to protect the oppreſſed, to deſtroy the oppreſſor, to encourage and reward the good, and to ſhow all ſpirits the path to their ultimate happineſs, has been pleaſed, ſay the *Bráhmens*, to manifeſt himſelf in a variety of ways, from age to age, in all parts of the habitable world. When he acts immediately, without aſſuming a ſhape, or ſending forth a new emanation, as when a divine ſound is heard from the ſky, that manifeſtation of himſelf is called *Acáſavánì*, or an *ethereal voice:* when the voice proceeds from a meteor, or a flame, it is ſaid to be *agnirúpì*, or *formed of fire*; but an *avatára* is a *deſcent* of the deity in the ſhape of a mortal; and an *avántara* is a ſimilar incarnation of an inferior kind, intended to anſwer ſome purpoſe of leſs moment. The Supreme Being, and the celeſtial emanations from him, are *nirácará*, or *bodileſs*, in which ſtate they muſt be inviſible to mortals; but, when they are *pratyacſhá*, or *obvious to ſight*, they become *ſácárá*, or *embodied*, either in ſhapes different from that of any mortal, and expreſſive of the divine attributes, as CRISHNA revealed him to ARJUN, or in a human form, which CRISHNA uſually bore; and, in that mode of appearing, the deities are generally ſuppoſed to be born of women, but without any carnal intercourſe. Thoſe who follow the *Púrva Mímánſa*, or philoſophy of JAIMINI,

JAIMINI, admit no ſuch incarnations of deities, but inſiſt, that the *Dévas* were mere mortals, whom the Supreme Being was pleaſed to endue with qualities approaching to his own attributes; and the *Hindus* in general perform acts of worſhip to ſome of their ancient monarchs and ſages, who were deified in conſequence of their eminent virtues. After theſe introductory remarks, we proceed to the ſeveral manifeſtations, in *Egypt* and other countries adjacent to the *Nile*, of DE'VI and the three principal gods of the *Hindus*, as they are expreſsly related in the *Puránas* and other *Sanſcrit* books of antiquity.

DE'VI', or the *Goddeſs*, and ISI', or the *Sovereign Queen*, is the ISIS of *Egypt*, and repreſents *Nature* in general, but in particular the *Earth*, which the *Indians* call PRIT'HIVI'; while *water* and *humidity* of all kinds are ſuppoſed by the *Hindus* to proceed from VISHNU, as they were by the *Egyptians* to proceed from OSIRIS: this account of ISIS we find corroborated by PLUTARCH; and SERVIUS aſſerts, that the very word ISIS means *Earth* in the language of the *Egyptians*; but this I conceive to be an error.

I. It is related in the *Scánda*, that, when the whole earth was covered with water, and VISHNU lay extended aſleep in the boſom of DE'VI', a lotos aroſe from his navel, and its aſcending flower ſoon reached the ſurface of the flood; that BRAHMA ſprang from that flower, and, looking round without ſeeing any creature on the boundleſs expanſe, imagined himſelf to be the firſt-born, and entitled to rank above all future beings; yet reſolved to inveſtigate the deep, and to aſcertain whether any being exiſted in it who could controvert his claim to pre-eminence. He glided, therefore, down the ſtalk of the lotos, and, finding VISHNU aſleep, aſked loudly who he was: "I am the firſt-born," anſwered VISHNU waking; and, when BRAHMA' denied his primogeniture, they had an obſtinate battle, till MAHA'DE'VA preſſed between them in great wrath, ſaying: "It is I, who am truly the firſt-born; "but I will reſign my pretenſions to either of you, who ſhall be able to reach and "behold the ſummit of my head or the ſoles of my feet." BRAHMA' inſtantly aſcended, but, having fatigued himſelf, to no purpoſe, in the regions of immenſity, yet loth to abandon his claim, returned to MAHA'DE'VA, declaring that he had attained and ſeen the crown of his head, and calling, as his witneſs, the firſt-born cow: for this union of pride and falſehood the angry god ordained, that no ſacred rites ſhould be performed to BRAHMA', and that the *mouth* of the cow ſhould be defiled and a cauſe of defilement, as it is declared to be in the oldeſt *Indian* laws. When VISHNU returned, he acknowledged that he had not been able to ſee the feet

of MAHA'DE'VA, who then told him, that he was really the firſt-born among the Gods, and ſhould be raiſed above all: it was after this, that MAHA'DE'VA cut off the fifth head of BRAHMA', whoſe pride, ſays the writer of the *Scanda Purán*, occaſioned his loſs of power and influence in the countries bordering on the river *Cálì*. Whether theſe wild ſtories on the wars of the three principal Gods mean only the religious wars between the ſeveral ſectaries, or whether they have any more hidden meaning, it is evident from the *Puránas*, which repreſent *Egypt* as the theatre of action, that they are the original legends of the wars between OSIRIS, HORUS, and TYPHON; for BRAHMA' in his character of all-deſtroying *Time*, correſponds with TYPHON; and MAHA'DE'VA, in that of the *productive principle*, with HARUS or HORA, who aſſumes each of his characters on various occaſions, either to reſtore the powers, or to ſubdue the opponents, of VISHNU, or active Nature, from whom his auxiliary ſprings. In *Egypt*, ſays PLUTARCH, certain ſacrifices were made even to TYPHON, but only on particular days, and for the purpoſe of conſoling him after his overthrow; as in *India* no worſhip is paid to BRAHMA', except on particular occaſions, when certain offerings are made to him, but placed at ſome diſtance from the perſon who offers them: the *Greeks* have confounded TYPHON with PYTHON, whoſe hiſtory has no connection with the wars of the Gods, and who will appear in the following ſection, to be the PAIT'HI'NASI of the *Hindus*. The idea of MAHA'DE'VA with *his head in the higheſt heaven, and his feet in the loweſt parts of the earth*, is conformable to the language of the oracle, in its anſwer to NICOCRATES, King of *Cyprus:*

Οὐράνιος κόσμος κεφαλή,——
Γαῖα δέ μοι πόδες——

And the ſame image is expreſſed, word for word, at the beginning of the fourth *Véda*, where the deity is deſcribed as *Mahápuruſha*, or the *Great Male*.

In the ſtory of the war between OSIRIS and TYPHON, mention is made by PLUTARCH of a ſtupendous *Boar*, in ſearch of whom TYPHON travelled, with a view, perhaps, to ſtrengthen his own party by making an alliance with him: thus it is ſaid in the *Vaiſhnavágama*, that CRO'RA'SURA was a demon, with the face of a *Boar*, who, nevertheleſs, was continually reading the *Véda*, and performing ſuch acts of devotion, that VISHNU appeared to him on the banks of the *Brahmaputra*, promiſing to grant any boon that he could aſk. CRO'RA'SURA requeſted, that no creature, then exiſting in the three worlds, might have power to deprive him of life; and

and VISHNU granted his requeſt: but the demon became ſo inſolent, that the *Dévatás*, whom he oppreſſed, were obliged to conceal themſelves, and he aſſumed the dominion of the world. VISHNU was then ſitting on a bank of the *Cálì*, greatly diſquieted by the malignant ingratitude of the demon; and, his wrath being kindled, a ſhape, which never before had exiſted, ſprang from his eyes; it was MAHA'DE'VA, in his deſtructive character, who *diſpelled* in a moment the anxiety of VISHNU, whence he acquired the ſurname of CHINTA'HARA. With flaming eyes, contracted brows, and his whole countenance diſtorted with anger, he ruſhed toward CRO'RA'SURA, ſeized him with fury, and carried him under his arm in triumph over the whole earth, but at length caſt him lifeleſs on the ground, where he was transformed into a mountain, ſtill called the Mountain of CRO'RA, or the *Boar:* the place where VISHNU ſat by the river *Cálì*, has the name of *Chintáhara-ſt'halì*; and "all they, "ſays the author of the *A'gama*, who are troubled with anxious thoughts, need only "meditate on CHINTA'HARA, and their cares will be diſſipated." The word *Chintá* was, I imagine, pronounced *Xanthus* by the deſcendants of DARDA'NA'SA, or DARDANUS, who carried into their new ſettlements not only the name, but ſome obſcure notions relative to the power of the deity CHINTA'HARA: the diſtrict of *Troas*, where they ſettled, was called alſo *Xanthè*; there was a town *Xanthus* in *Lycia*, and a nation of *Xanthi*, or *Xantii*, in *Thrace*; a river of *Lycia* had that name, and ſo had another near *Troy*, in the waters of which grew a plant, ſuppoſed capable of *diſpelling the cares and terrors*, which both *Greeks* and *Indians* believed to be cauſed by the preſence of ſome inviſible deity or evil ſpirit *. The river *Xanthus*, near *Troy*, was vulgarly called *Scamander*, but its ſacred name, uſed in religious rites, was *Xanthus*; as moſt rivers in *India* have different names, popular and holy. XANTHUS, according to HOMER, was a ſon of JUPITER, or, in the language of *Indian* Mythology, an *avántara*, or inferior manifeſtation, of SIVA: others make him a ſon of the great TREMILUS †, whom I ſhould ſuppoſe to be JUPITER *Temelius*, or rather *Tremelius*, worſhipped at *Biennus* in *Crete*; for the *Tremili*, or *Tremylæ*, came originally from that iſland. According to STEPHANUS of *Byzantium*, the native country of XANTHUS was *Egypt* ‡; and, on the ſhores of the *Atlantick*, there were monſters ſhaped like bulls, probably ſea-cows, called *Xanthari*. A poet, cited by STEPHANUS, under the word *Tremile*, ſays, that XANTHUS, ſon of JUPITER, travelled with his brothers over the whole world, and *did a great deal of miſ-*

* Plut. on Rivers, art. *Scamander*. † Steph. Byzant. *Tremile*. ‡ See the word *Xanthus*.

chief,

chief, that is, according to the *Puránas*, deſtroyed the inſolent CRO'RA'SURA, who was probably revered in the more weſtern countries, where VARA'HE'S'WARA once reigned according to the *Hindus*, and where they believe his poſterity ſtill to live in the ſhape of white *Varáhas*, or *Boars*: the legend of the wars between thoſe *Varáhas* and the *Sarabhas*, a ſort of monſter with the face of a lion, and wings like a bird, ſhall be explained in another eſſay on *Varáha-dwíp*; and I ſhall only add in this place, that the war was repreſented, according to HESIOD, on the ſhield of HERCULES. At preſent the place, where the temple of AMMON formerly ſtood, has the name of *Santariah*, which may be derived from ſome altar anciently dedicated to CHINTA'HARA.

II. We are told in the *Náreda Purán*, that SU'RYA, the regent of the Sun, had choſen a beautiful and well-peopled country in *Sanc'ha-dwíp*, for the purpoſe of performing his devotions; but that he had no ſooner begun, than the whole region was in flames, the waters dried up, and all its inhabitants deſtroyed; ſince which it has been denominated *Barbára*. The *Dévatás*, it is added, were in the greateſt diſtreſs, and VISHNU deſcended with BRAHMA', to expoſtulate with the author of the conflagration: SU'RYA praiſed and worſhipped them, but lamented, that his devotion has not proſpered, and promiſed to repair the injuries done by his flames. "It is I, ſaid VISHNU, who muſt repair them; and, when I ſhall reviſit this coun-"try in the character of CRISHNA, to deſtroy the demon SANC'HA'SURA, the land "ſhall cool and be repleniſhed with plants and animals; the race of *Páli* ſhall then "ſettle here, with the *Cutila-céſas*, the *Yavanas*, and other *Mléch'ha* tribes."

In the *Uttara-charitra*, and other ancient books, we find many ſtories concerning SU'RYA, ſome of which have a mixture of aſtrological allegory. Once, it ſeems, he was performing acts of auſtere devotion, in the character of TAPANA, or the *Inflamer*, when his conſort PRABHA', or *Brightneſs*, unable to bear his intenſe heat, aſſumed the form of CH'HAYA', or *Shade*, and was impregnated by him: after a period of a hundred years, when Gods and men, expecting a terrible offſpring, were in the utmoſt conſternation, ſhe was delivered of a male child, in a remote place, afterwards called *Arkiſt'hán*, or *Sauriſt'hán*, from *Arci* and *Sauri*, the patronymicks of ARCA and SU'RYA. He was the genius of the planet, which the *Latians* called SATURN, and acquired among the *Hindus* the epithet of SANI, and SANAIS'CHARA, or *ſlow-moving*. For twelve years, during his education at *Arci-ſt'hán*, no rain fell; but a deſtructive wind blew continually, and the air blazed with tremendous meteors: a dreadful famine enſued, and the *Dévetás*, together with the *Daityas*, implored

plored the protection and advice of SU'RYA, who directed them to propitiate SANI by performing religious rites to VISHNU, near the *Pippal* tree; which is an emblem of him; and aſſured them, that in future ages the malignant influence of the planet ſhould prevail only during its paſſage through four ſigns of the *Ajavil'hi*, or *Zodiack*. The reign of SU'RYA in *Barbara* continued long, but he reſigned his dominion to SANI, whoſe government was tyrannical: all his pious and prudent ſubjects fled to the hilly countries bordering on the river *Nandá*, while the irreligious and raſh periſhed in the *deſerts of burning ſand*, to which the baneful eyes of the tyrant reduced all the plains and meadows on which he looked. His father, returning to viſit his ancient realm, and ſeeing the deſolation of the whole country, expelled SANI, and ſent for another of his ſons, named AURVA, who, being appointed ſucceſſor to his brother, purified the land, recalled the holy men from the hills, and made his ſubjects happy in eaſe and abundance, while he reſided at *Aurva-ſt'hán*, ſo called from his name; but he returned afterwards to *V'ahniſt'hán*, the preſent *Azarbáïján*, or the *Seat of Fire*, in the interior *Cuſha-dwípa*, where he was performing his devotions on *Triſ-rínga*, or the mountain *with three peaks*, at the time when his father ſummoned him to the government of *Barbará*. Juſt before that time he had given a dreadful proof of his power; for ARA'MA, *the ſon of a ſon of* SATYAVRATA (and conſequently the ARAM of Scripture), was hunting in that country with his whole army, near a ſpot where DURVA'SAS, a cholerick ſaint, and a ſuppoſed *avántar* of MAHA'DE'VA, was ſitting rapt in deep meditation: ARAM inadvertently ſhot an arrow, which wounded the foot of DURVA'SAS, who no ſooner opened his eyes, than AURVA ſprang from them in the ſhape of a flame, which conſumed ARAM and his party, together with all the animals and vegetables in *Cuſha-dwíp*. It ſeems to me, that AURVA is VULCAN, or the God of Fire, *who reigned*, according to the *Egyptian* prieſts, *after the Sun*, though ſome have pretended, ſays DIODORUS, that he had exiſted before that luminary; as the *Hindus* allege that AGNI, or Fire, had exiſtence in an elementary ſtate before the formation of the Sun, but could not be ſaid to have dominion till its force was concentrated: in another character he is ORUS the Elder, or APOLLO, a name derived, I imagine, from a *Sanſcrit* word, implying a power of *diſpelling humidity*. No doubt, the whole ſyſtem of *Egyptian* and *Indian* Mythology muſt at firſt view ſeem ſtrangely inconſiſtent; but, ſince all the Gods reſolve themſelves into one, of whom they were no more than *forms* or *appearances*, it is not wonderful that they ſhould be confounded; eſpecially as every emanation from the Supreme Spirit was believed to ſend forth collateral emanations, which were blended with

with one another, ſometimes recalled, ſometimes continued or renewed, and variouſly reflected or refracted in all directions: another ſource of confuſion is, the infinite variety of legends which were invented from time to time in *Greece*, *Egypt*, *Italy*, and *India*; and, when all the cauſes of inconſiſtency are conſidered, we ſhall no longer be ſurpriſed to ſee the ſame appellations given to very different deities, and the ſame deities appearing under different appellations. To give an example in SATURN: the planet of that name is the SANI of *India*, who, ſays DIODORUS, was conſidered by the *Chaldeans* as the moſt powerful of the heavenly bodies, next to the Sun; but his influence was thought baneful, and incantations, with offerings of certain *perfumes*, were uſed to avert or to mitigate it. When the name is applied to CHRONUS, the Father of the Gods, it means CA'LA, or *Time*, a character both of MAHA'DE'VA and BRAHMA; but when he is called CRONUS, he ſeems to be the gigantick CRAUNCHA of the *Hindus*; which the SATURN of *Latium*, and of the Golden Age, appears to be quite a different perſon, and his title was probably derived from SATYAVERNA, which implies an age of *veracity* and righteouſneſs. BRAHMA with a *red* complexion is worſhipped, ſay the *Purânas*, in the *dwîp* of *Puſhcara*, which I ſuppoſe to be a maritime country at no great diſtance from *Egypt*: he was there called the firſt-born of nature, Lord of the Univerſe, and Father of Deities: and, the Mythology of *Puſhcara* having paſſed into *Greece*, we find CRONUS repreſented in thoſe characters, but mild and beneficent to the human race, with ſome features borrowed from the older ſyſtem, which prevailed on the banks of the *Nile* and the *Ganges*. I cannot help ſuſpecting, that the word *Cála* was the origin of CŒLUS, or *Cœlus*, as ENNIUS wrote it; and the ARHAN of the *Jainas*, who was a *form* of MAHA'CA'LA, might originally have been the ſame with URANUS: as to RHEA, there can be no doubt that ſhe is the Goddeſs RI, whom the *Hindus* call the Mother of the Gods; but ſome ſay, that ſhe alſo produced malignant beings; and PLINY tells us, that ſhe was the mother of TYPHON, who became ſovereign of *Egypt* *, but was depoſed and expelled by AVERIS or HORUS; where we have preciſely the ſtory of SANI and AURVA. We cannot but obſerve, that the ſucceſſion of the Gods in *Egypt*, according to MANETHO, is exactly in the ſpirit of *Hindu* Mythology, and conformable, indeed, to the *Purânas* themſelves; and we may add, before we leave the planets, that, although VRIHASPETI, an ancient legiſlator and philoſopher, be commonly ſuppoſed to direct the motions of

* Lib. 2. cap. 25. &c.

Jupiter,

Jupiter, which now bears his name, yet many of the *Hindus* acknowledge, that SIVA, or the God JUPITER, ſhines in that planet, while the ſun is the peculiar ſtation of VISHNU, and SATURN is directed by BRAHMA', whom, for that reaſon, the *Egyptians* abhorred, not daring even to pronounce his true name, and abominating all animals with red *hair*, becauſe it was his colour.

There is ſomething very remarkable in the number of years, during which ARCA and his ſon reigned on the banks of the *Cáli*. The Sun, according to the *Bráhmens*, began his devotion immediately after the flood, and continued it a hundred years; SANI, they ſay, was born a hundred years after his conception, and reigned a hundred years, or till the death of A'RA'M, who muſt therefore have died about about three hundred years after the deluge, and fifty years before his grandfather; but the *Paúranics* inſiſt, that they were years of *Brahmà:* now one year of mortals is a day and night of the Gods, and 360 of our years is one of theirs; 12,000 of their years, or 4,320,000 of ours, conſtitute one of their ages, and 2000 ſuch ages are BRAHMA's day and night, which muſt be multiplied by 360, to make one of his years; ſo that the chronology of *Egypt*, according to the *Bráhmens*, would be more extravagant than that of the *Egyptians* themſelves, according to MANETHO. The *Talmud* contains notions of *divine days* and *years*, founded on paſſages in Scripture ill underſtood; the period of 12,000 years was *Etruſcan*, and that of 4,320,000 was formed in *Chaldea* by repetitions of the *ſaros*; the *Turdetani*, an old and learned nation in *Spain*, had a long period nearly of the ſame kind; but for particular inquiries into the ancient periods and the affinity between them, I muſt refer to other eſſays, and proceed to the geography of *Egypt*, as it is illuſtrated by the *Indian* legends.

The place where the Sun is feigned to have performed his acts of religious auſterity, is named the *ſt'hán*, or ſtation, of ARCA, SU'RYA, and TAPANA: as it was on the limit between the *dwípas* of *Cuſh* and *Sanc'ha*, the *Puráns* aſcribed it indifferently to either of thoſe countries. I believe it to be the *Taphanhés* of Scripture, called *Taphna*, or *Taphnai*, by the ſeventy interpreters, and *Daphne* in the *Roman* Itinerary, where it is placed ſixteen miles from *Peluſium*: it is mentioned by HERODOTUS, under the name of *Daphnæ Peluſiæ* *, and by STEPHANUS under that of *Daphne* near *Peluſium*; but the moderns have corrupted the name into *Safnas*.

SAURI-S'HAN, where SANI was born and educated, ſeems to have been the famed

* B. 2. c. 30.

Beth

Beth Shemeſh, or *Heliopolis*, which was built, ſays DIODORUS, by ACTIS, in honour of his father the Sun *; ACTIS firſt taught aſtronomy in *Egypt*, and there was a college of aſtronomers at *Heliopolis*, with an obſervatory and a temple of the Sun, the magnificence and celebrity of which might have occaſioned the change of the ancient name into *Súrya-ſt'hán*, as it was tranſlated by the *Hebrews* and *Greeks*. It is ſaid by the *Hindus*, that SANI, or ARKI, built ſeveral places of worſhip in the regions adjacent to the *Cálì*; and we ſtill find the town of *Arkico* near the Red Sea, which is not mentioned, indeed, by any of the *Grecian* geographers, but the headland contiguous to it is called by PTOLEMY, the Promontory of SATURN. The genius of SATURN is deſcribed in the *Puráns*, as clad in a black mantle, with a dark turban looſely wrapped round his head; his aſpect hideous, and his brows knit with anger, a trident in one of his four hands, a cimetar in a ſecond, and, in the two others, a bow and ſhafts: the prieſts of SATURN in *Egypt*, where his temples were always out of the towns, are ſaid by EPIPHANIUS, to have worn a dreſs nearly ſimilar.

To conclude this head, we muſt add, that the *ſt'hán* of AURVA is now called *Arſu* by the *Copts* †; but, as AURVA correſponded with ORUS, or APOLLO, the *Greeks* gave it the name of *Apollonopolis*.

III. The metamorphoſis of LUNUS into LUNA was occaſionally mentioned in the preceding ſection; but the legend muſt now be told more at length. The God SO'MA, or CHANDRA, was traverſing the earth with his favourite conſort RO'HINI'; and, arriving at the ſouthern mountain, *Sahyádri*, they unwarily entered the foreſt of *Gaurì*, where ſome men having ſurpriſed MAHA'DE'VA careſſing that goddeſs, had been formerly puniſhed by a change of their ſex, and the foreſt had retained a power of effecting the like change on all males who ſhould enter it. CHANDRA, inſtantly becoming a female, was ſo afflicted and aſhamed, that ſhe haſtened *far to the weſt*, ſending RO'HINI' to her ſeat in the ſky, and concealed herſelf in a mountain, afterwards named *Sóma-giri*, where ſhe performed acts of the moſt rigorous devotion. Darkneſs then covered the world each night: the fruits of the earth were deſtroyed, and the univerſe was in ſuch diſmay, that the *Dévas*, with BRAHMA' at their head, implored the aſſiſtance of MAHA'DE'VA, who no ſooner placed *Chandrì* on his forehead, that ſhe became a male again; and hence he acquired the title of *Chandraſéc'hara*. This fable has been explained to me by an ingenious *Pandit*: to

* B. 6. c. 13. † Lett. Edif. vol. 5. p. 257.

the

the inhabitants of the countries near the ſource of the *Cálì*, the moon, being in the manſion of *Róhinì*, or the *Hyads*, ſeemed to vaniſh behind the ſouthern mountains: now, when the moon is in its oppoſition to the ſun, it is the god CHANDRA; but, when in conjunction with it, the goddeſs CHANDRI', who was in that ſtate feigned to have conceived the *Pulindas* mentioned in the former ſection. The moon is believed by the *Hindu* naturaliſts to have a powerful influence on vegetation, eſpecially on certain plants, and above all, on the *Sómalatá*, or *moon-plant*; but its power, they ſay, is greateſt at the *púrnimà*, or full, after which it gradually decays till, on the dark *tit'hi*, or *amává/yà*, it wholly vaniſhes. This mode of interpretation may ſerve as a clue for the intricate labyrinth of the *Puránas*, which contain all the hiſtory, phyſiology, and ſcience of the *Indians* and *Egyptians* diſguiſed under ſimilar fables. We have already made remarks on the *region* and *mountains* of the moon, which the *Puránas* place in the exterior *Cuſha-dwíp*, or the ſouthern parts of *Africa*,; and we only add, that the *Pulindas* conſider the female moon as a *form* of the celeſtial I'SI, or ISIS, which may ſeem to be incompatible with the mythological ſyſtem of *India*; but the *Hindus* have in truth an ISIS with *three forms*, called SWAR-DE'VI' in heaven, BHU-DE'VI' on earth, and PA'TA'LA-DE'VI' in the infernal regions. The conſort of the terreſtrial goddeſs is named BHU'DE'VA, who reſides on SUME'RU, and is a vicegerent on earth of the three principal deities: he ſeems to be the Βῆλος of the *Greek* Mythologiſts, and the BUDYAS of ARRIAN; though the *Grecian* writers have generally confounded him with BUDDHA.

IV. When this earth was covered with waters, MAHA'CA'LA, who floated on their ſurface, beheld a company of *Apſaraces*, or *Nymphs*, and expreſſed with ſuch force his admiration of their beauty, that MAHA'CA'LI', his conſort, was greatly incenſed and ſuddenly vaniſhed: the God, ſtung with remorſe, went in ſearch of her, and with haſty ſtrides traverſed the earth, which then had riſen above the waters of the deluge, as they were dried up or ſubſided; but the ground gave way under the preſſure of his foot at every ſtep, and the balance of the globe was nearly deſtroyed. In this diſtreſs he was ſeen by the relenting CA'LI' on the ſite of *Srirangapattana*; and conſidering the injury which the univerſe would ſuſtain by her concealment, ſhe appeared in the character of RA'JARA'JE'SWARI', and in the form of a damſel more lovely than *Apſaras*, on the banks of a river ſince named *Cálì*. There at length he ſaw and approached her in the character of RA'JARA'JE'SWARA, and in the ſhape of a beautiful youth; they were ſoon reconciled, and travelled together over the world, promoting the increaſe of animals and vegetables, and inſtructing

mankind in agriculture and uſeful arts. At laſt they returned to *Cuſha-dwíp*, and ſettled at a place, which from them was named the *St'hán* of RA'JARA'JE'SWARA and RA'JARA'JE'SWARI', and which appears to be the *Nyſa* of *Arabia*, called *Elim* in Scripture, and *El Tor* by modern geographers; but *Al Túr* belongs properly to the interior *dwíp* of *Cuſha:* they reſided long in that ſtation converſing familiarly with men, till the iniquities of later generations compelled them to diſappear; and they have ſince been worſhipped under the titles of ISA'NA, or ISA, and ISA'NI, or ISI'.

Since the goddeſs ISIS made her firſt appearance in *Egypt*, that country is called her *nurſing mother* in an inſcription mentioned by DIODORUS, and ſaid to have been found on a pillar in *Arabia:* ſhe was reported by the *Egyptians* to have been *Queen* of that country, and is declared in the *Puráns* to have reigned over *Cuſha*-dwíp *within*, as her conſort has the title, in the *Arabian* inſcription, of King OSIRIS; conformably, in both inſtances, to the characters under which they appeared on the banks of the *Nile*. The place where I'SI was firſt viſible, became of courſe an object of worſhip; but, as it is not particularly noticed by the Mythologiſts of the weſt, we cannot preciſely aſcertain its ſituation: it was probably one of the places in the Delta, each of which was denominated ISEUM; and I think it was the town of Isis, near *Sebennytus* *, now called *Bha-beit*, where the ruins of a magnificent temple, dedicated to ISIS, are ſtill to be ſeen. As YSIRIS came from the weſtern peninſula of *India*, he was conſidered in *Egypt* as a foreign divinity, and his temples were built out of the towns.

V. BHAVA, the author of *exiſtence*, and conſort of AMBA', the *Magna Mater* of the weſtern Mythologiſts, had reſolved to ſet mankind an example of performing religious auſterities, and choſe for that purpoſe an *Aranya*, or *uninhabited foreſt*, on the banks of the *Nile*; but AMBA', named alſo BHAVA'NI' and UMA', being uneaſy at his abſence, and gueſſing the place of his retirement, aſſumed the character of ARANYA-DE'VI', or Goddeſs of the Foreſt, and appeared ſporting among the trees at a place called afterwards *Cámavana*, or the Wood of Deſire, from the impreſſion which her appearance there made on the amorous deity: they retired into an *Atavi*, or impervious foreſt, whence the Goddeſs acquired alſo the title of ATAVI'-DE'VI, and the ſcene of their mutual careſſes had the name of *Bhavátavi-ſt'hána*, which is mentioned in the *Védas*. The place of their ſubſequent reſidence near the *Nile* was

* Tab. Peutinger. Plin. Steph. Byzantium.

denominated

denominated *Crírávana*, or the Grove of Dalliance; and that, where BHAVA was interrupted in his devotions, was at firſt called *Bhavaſth'án*, and ſeems to be the celebrated *Bubaſtos*, or, in the oblique caſe, *Bubaſton*, peculiarly ſacred to DIANA, the Goddeſs of Woods: from *Bhavátavì*, which was at ſome diſtance from the *Nile*, in the midſt of an impervious foreſt, the *Greeks* made *Butoi* in the oblique caſe, whence they formed *Buto* and *Butús*; and there alſo ſtood a famous temple of DIANA. The ſituation of *Crírávana* cannot be ſo eaſily aſcertained; but it could not have been far from the two laſt-mentioned places, and was probably in the Delta, where we find a moſt diſtinguiſhed temple of VENUS at *Aphroditopolis* *, now *Atar-bekhi*, which, according to STEPHANUS of *Byzantium*, was at no great diſtance from *Atribi:* the goddeſs had, indeed, laid aſide the character of DIANA, when BHAVA perceived her, and aſſumed that of BHAVÁ'NI, or VENUS. The three places of worſhip here mentioned were afterwards continually viſited by numerous pilgrims, whom the *Brahmánda-purán*, from which the whole fable is extracted, pronounces entitled to delight and happineſs both in this world and the next.

BHAVE'SWARA ſeems to be the BUSIRIS of *Egypt*; for STRABO aſſerts, poſitively, that no *Egyptian* king bore that name, though altars, on which men were anciently ſacrificed, were dedicated to BUSIRIS, and the human victims of the *Hindus* were offered to the conſort of BHAVE'SWARA. The *Naramédha*, or *ſacrifice of a man*, is allowed by ſome ancient authorities; but ſince it is prohibited under pain of the ſevereſt torture in the next world, by the writers of the *Bràhma*, of the *Á'ditya-purán*, and even of the *Bhágavat* itſelf, we cannot imagine that any *Bráhmen* would now officiate at ſo horrid a ceremony; though it is aſſerted by ſome, that the *Pámaras*, or *Pariar* nations, in different parts of *India*, diſregard the prohibition, and that the *Carbaras*, who were allowed by PARAS'U RA'MA to ſettle in the *Cóncan*, to ſacrifice a man in the courſe of every generation, to appeaſe the wrath of RE'NUCA'-DE'VI'.

Before we quit the ſubject of *Atavì*, we muſt add two legends from the *Bráhmánda*, which clearly relate to *Egypt*. A juſt and brave king, who reigned on the borders of *Himálaya*, or *Imaus*, travelled over the world to deſtroy the robbers who then infeſted it; and as he uſually ſurpriſed them by *night*, he was ſurnamed NACTAMCHARA; to his ſon NIS'A'CHARA, whoſe name had the ſame ſignification, he

* Herod. B. 2. c. 42.

gave

gave the kingdom of *Barbara* near the Golden Mountains, above *Syene*; and NISA'CHARA followed at firſt the example of his father, but at length grew ſo inſolent as to contend with INDRA, and oppreſſed both *Dévas* and *Dánavas*, who had recourſe to ATAVI'-DE'VI', and ſolicited her protection. The goddeſs adviſed them to lie for a time concealed in *Swerga*, by which we muſt here underſtand the *mountains*; and, when the tyrant raſhly attempted to drive her from the banks of the *Nile*, ſhe attacked and ſlew him: the *Dévas* then returned ſinging her praiſes; and on the ſpot where ſhe fought with NISA'CHARA, they raiſed a temple, probably a pyramid, which from her was called *Ataví-mandira*. Two towns in *Egypt* are ſtill known to the *Copts* by the names of *Atfi*, *Atfieh*, and *Itfu*; and to both of them the *Greeks* gave that of *Aphroditopolis*; the diſtrict round the moſt northerly of them is to this day named *Ibrit*, which M. D'ANVILLE, with good reaſon, thinks a corruption of APHRODITE; but *Ataví-mandir* is *Atfi* to the ſouth of *Alkáhirah*, not the *Atfi* or *Itfu* near *Thebes*, which alſo is mentioned in the *Puránas*, and ſaid to have ſtood in the foreſts of *Tapas*.

Another title of the Goddeſs was ASHTA'RA', which ſhe derived from the following adventure. VIJAYA'SWA, or *victorious on horſeback*, was a virtuous and powerful king of the country round the *Niſhadha* mountains; but his firſt miniſter having revolted from him, collected an army of *Mléch'has* in the hills of *Gandha mádan*, whence he deſcended in force, gave battle to his maſter, took him priſoner, and uſurped the dominion of his country. The royal captive having found means to eſcape, repaired to the banks of the *Cálì*, and fixing eight ſharp iron ſpikes in a circle at equal diſtances, placed himſelf in the centre, prepared for death, and reſolved to perform the moſt rigorous acts of devotion. Within that circle he remained a whole year, at the cloſe of which the Goddeſs appeared to him, iſſuing like a flame from the eight iron points; and preſenting him with a weapon, called *Aſtárá-mudgara*, or a ſtaff armed with eight ſpikes fixed in an iron ball, ſhe aſſured him, that all men who ſhould ſee that ſtaff in his hand, muſt either ſave themſelves by precipitate flight, or would fall dead and mangled on the ground. The king received the weapon with confidence, ſoon defeated the uſurper, and erected a pyramid in honour of the goddeſs, by the name of ASHTA'RA-DE'VI': the writer of the *Purána* places it near the *Cálì* river in the woods of *Tapas*: and adds, that all ſuch as viſit it, will receive aſſiſtance from the goddeſs for a whole year. *Aſhtan* means *eight*, and the word *ára*, properly ſignifies the *ſpoke of a wheel*, yet is applied to any thing reſembling it; but in the popular *Indian* dialects, *aſhta* is pronounced *átt*; and

the

the appearance, which STRABO mentions, of the goddeſs APHRODITE under the name of ATTARA, muſt, I think, be the ſame with that of ASHTA'RA: the *Aſhtaroth* of the *Hebrews*, and the old *Perſian* word *aſtárah*, now written *ſitárah* (or a *ſtar with eight rays*), are moſt probably derived from the two *Sanſcrit* words. Though the place where VIJAYA'SWA raiſed his pyramid, or temple, was named *Aſhtáráſt'hán*, yet, as the goddeſs to whom he inſcribed it, was no other than ATAVI'-*dévi*, it has retained among the *Copts* the appellation of *Atfi*, or *Atſu*, and was called *Aphroditopolis* by the *Greeks*: it is below *Akhmim* on the weſtern bank of the *Nile*.

VI. Among the legends concerning the transformation of DE'VI, Φύσις πολύμορφος we find a wild aſtronomical tale in the *Náſatya Sanhità*, or hiſtory of the *Indian* CASTOR and POLLUX. In one of her *forms*, it ſeems ſhe appeared as PRABHA', or Light, and aſſumed the ſhape of *Aſwinì*, or a *Mare*, which is the firſt of the lunar manſions: the Sun approached her in the form of a *horſe*, and he no ſooner had touched her noſtrils with his, than ſhe conceived *the twins*, who, after their birth, were called *Aſwiní cumárau*, or the *two ſons* of ASWINI'. Being left by their parents, who knew their deſtiny, they were adopted by BRAHMA', who intruſted them to the care of his ſon DACSHA; and, under that ſage preceptor, they learned the whole *Ayurvéda*, or ſyſtem of medicine: in their early age they travelled over the world performing wonderful cures on gods and men; and they are generally painted on horſeback, in the forms of beautiful youths, armed with javelins. At firſt they reſided on the *Vrdi* mountains near *Colchis*; but INDRA, whom they had inſtructed in the ſcience of healing, gave them a ſtation in *Egypt* near the river *Cáli*, and their new abode was from them called *Aſwiſt'hán*: as medicated baths were among their moſt powerful remedies, we find near their ſeat a pool, named *Abhimatada*, or *granting what is deſired*, and a place called *Rúpa-yauvana-ſt'hala*, or the *land of beauty and youth*. According to ſome authorities, one of them had the name of 'ASWIN, and the other of CUMA'R, one of NA'SATYA, the other of DASRA; but, by the better opinion, thoſe appellations are to be uſed in the dual number, and applied to them both: they are alſo called ASWANA'SAU, or ASWACANA'SAU, becauſe their mother conceived them by her *noſtrils*; but they are conſidered as united ſo intimately, that *each ſeems either*, and they are often held to be one individual deity. As twin-brothers, the two DASRAS, or CUMA'RAS, are evidently the *Dioſcori* of the *Greeks*; but, when repreſented as an individual, they ſeem to be ÆSCULAPIUS, which my *Pandit* ſuppoſes to be ASWICULAPA, or *Chief of*

the

the race of Aſwi: that epithet might, indeed, be applied to the Sun; and ÆSCULAPIUS, according to ſome of the weſtern Mythologiſts, was a form of the Sun himſelf. The adoption of the twins by BRAHMA', whoſe favourite bird was the phœnicopteros, which the *Europeans* changed into a ſwan, may have given riſe to the fable of LEDA; but we cannot wonder at the many diverſities in the old mythological ſyſtem, when we find in the *Puránas* themſelves very different genealogies of the ſame divinity, and very different accounts of the ſame adventure.

ÆSCULAPIUS, or ASCLEPIUS, was a ſon of APOLLO, and his mother, according to the *Phenicians*, was a goddeſs, that is, a form of DE'VI': he too was abandoned by his parents, and educated by AUTOLAUS, the ſon of ARCAS *. The *Aſwiculapas*, or *Aſclepiades*, had extenſive ſettlements in *Theſſaly* †, and, I believe, in *Meſſenia*. The word *Aſwinì*, ſeems to have given a name to the town of *Aſphynis*, now *Asfun*, in Upper *Egypt*; for *Aſwa*, a *horſe*, is undubitably changed by the *Perſians* into *Aſb*, or *Aſp*; but *Aſwi-ſt'hán* was probably the town of *Abydus* in the *Thebais*; and might have been ſo named from *Abhida*, a contraction of *Abhimata'la*; for STRABO informs us, that it was anciently a very large city, the ſecond in *Egypt* after *Thebes*; that it ſtood about ſeven miles and a half to the weſt of the *Nile*; that a celebrated temple of OSIRIS was near it, and a magnificent edifice in it, called the palace of MEMNON; that it was famed alſo for a well, or pool of water, with winding ſteps all round it; that the ſtructure and workmanſhip of the reſervoir were very ſingular, the ſtones uſed in it of an aſtoniſhing magnitude, and the ſculpture on them excellent ‡. HERODOTUS inſiſts, that the names of the DIOSCURI were unknown to the *Egyptians*; but, ſince it is poſitively aſſerted in the *Puránas*, that they were venerated on the banks of the *Nile*, they muſt have been revered, I preſume, in *Egypt* under other names: indeed, HARPOCRATES and HALITOMENION, the twin-ſons of OSIRIS and ISIS, greatly reſemble the DIOSCURI of the *Grecian* Mythologiſts.

VII. Before we enter on the next legend, I muſt premiſe, that *ída* pronounced *íra*, is the root of a *Sanſcrit* verb, ſignifying *praiſe*, and ſynonymous with *íla*, which oftener occurs in the *Véda:* the *Rigvéda* begins with the phraſe *Agnim íle*, or *I ſing praiſe to fire.* VISHNU then had two warders of his ethereal palace, named JAYA and VIJAYA, who carried the pride of office to ſuch a length, that they inſulted the ſeven *Maharſhis*, who had come, with SANACA at their head, to preſent their

* Pauſan. B. 6. c. 23. † Pauſan. B. 8. c. 25. ‡ Strabo, B. 9. p. 434, 438.

adorations;

adorations; but the offended *Riſhis* pronounced an imprecation on the inſolent warders, condemning them to be *adhóyóni*, or *born below*, and to paſs through three mortal forms before they could be re-admitted to the divine preſence: in conſequence of this execration, they firſt appeared on earth as HIRANYA'CSHA, or *Golden-eyed*; and HIRANYACASIPU, or *Clad in Gold*; ſecondly, as RAVA'NA and CUMBHACARNA; and, laſtly, as CANSA and SIS'UPA'LA.

In their firſt appearance, they were the twin-ſons of CA'SYAPA and DITI: before their birth the body of their mother blazed like the ſun, and the *Dévatas*, unable to bear its exceſſive heat and *light*, retired to the banks of the *Cálì*, reſolving to lie concealed till ſhe was delivered; but the term of her geſtation was ſo long, and her labour ſo difficult, that they remained a thouſand years near the holy river employed in acts of devotion. At length DE'VI' appeared to them in a new character, and had afterwards the title of I'DI'TA, or I'LITA', becauſe ſhe was *praiſed* by the Gods in their hymns, when they implored her aſſiſtance in the delivery of DITI: ſhe granted their requeſt, and the two *Daityas* were born; after which I'LITA'-DE'VI aſſured mankind, that any woman who ſhould fervently invoke her in a ſimilar ſituation, ſhould have immediate relief. The *Dévas* erected a temple in the place where ſhe made herſelf viſible to them, and it was named the *ſt'hán* of IDITA' or I'LITA'; which was probably the town of *Idithya* or *Ilithya* in Upper *Egypt*; where ſacred rites were performed to EITITHYA, or ELEUTHO, the LUCINA of the *Latians*, who aſſiſted women in labour: it ſtood cloſe to the *Nile*, oppoſite to Great *Apollonopolis*, and ſeems to be *Leucothea* of PLINY. This goddeſs is now invoked in *India* by women in child-bed, and a burnt offering of certain perfumes is appropriated to the occaſion.

VIII. We read in the *Mahad-himálaya-c'han'da*, that, after a deluge, from which very few of the human race were preſerved, men became ignorant and brutal, without arts or ſciences, and even without a regular language; that part of *Sanc'ha-dwíp* in particular, was inhabited by various tribes who were perpetually diſputing; but that 'ISWARA deſcended among them, appeaſed their animoſities, and formed them into a community of citizens, *mixed* without invidious diſtinctions; whence the place where he appeared, was denominated *Miſra-ſt'hán*; that he ſent his conſort VA'GE'SWARI', or the Goddeſs of Speech, to inſtruct the riſing generations in arts and languages; for which purpoſe ſhe alſo viſited the *dwíp* of CUSHA. Now the ancient city of MISRA was *Memphis*; and, when the ſeat of government was tranſferred to the oppoſite ſide of the river, the new city had likewiſe the name of *Miſr*, which

which it ſtill retains; for *Alkáhirah*, or the Conquereſs, vulgarly *Cairo*, is merely an *Arabick* epithet.

VA'GI'SWARA, or VA'GI'SA', commonly pronounced BA'GI'SWAR and BA'GI'S, means the Lord of *Speech*; but I have ſeen only one temple dedicated to a god with that title: it ſtands at *Gangápur*, formerly *Dehterea*, near *Banáres*, and appears to be very ancient: the image of VA'GI'SWARA, by the name of SIRO'DE'VA, was brought from the weſt by a grandſon of CE'TU-MISRA deſcended from GAUTAMA, together with that of the God's conſort and ſiſter, vulgarly named BASSARI; but the *Bráhmens* on the ſpot informed me, that her true name was BA'GI'SWARI'. The preciſe meaning of SIRO'DE'VA is not aſcertained: if it be not a corruption of SRI-DE'VA, it means the God of the *Head*; but the generality of *Bráhmens* have a ſingular diſlike to the deſcendants of GAUTAM, and object to their modes of worſhip, which ſeem, indeed, not purely *Indian*. The prieſts of BA'GI'SWARA, for inſtance, offer to his conſort a lower mantle with a red fringe, and an earthen pot ſhaped like a coronet: to the god himſelf they preſent a vaſe full of arak; and they even ſacrifice a hog to him, pouring its blood before the idol, and reſtoring the carcaſe to its owner; a ceremony which the *Egyptians* performed in honour of BACCHUS OSIRIS, whom I ſuppoſe to be the ſame deity, as I believe the *Baſſarides* to have been ſo named from *Baſſari*. Several demigods (of whom CICERO reckons five *), had the name of BACCHUS; and it is not improbable, that ſome confuſion has been cauſed by the reſemblance of names: thus BA'GI'SWARA was changed by the *Greeks* into BACCHUS OSIRIS; and, when they introduced a foreign name with the termination of a caſe in their own tongue, they formed a nominative from it; hence from BHAGAWA'N alſo they firſt made BACCHON, and afterwards BACCHOS; and, partly from that ſtrange careleſſneſs conſpicuous in all their inquiries, partly from the reſerve of the *Egyptian* prieſts, they melted the three divinities of *Egypt* and *India* into one, whom they miſcalled OSIRIS. We have already obſerved, that YSIRIS was the true pronunciation of that name, according to HESYCHIUS; though PLUTARCH inſiſts, that it ſhould be SIRIS or SIRIUS: but YSIRIS, or ISWARA, ſeems in general appropriated to the incarnations of MAHA'DE'VA, while SIRIS or SIRIUS was applied to thoſe of VISHNU.

IX. When the *Pándavas*, according to the *Vrihad-haima*, wandered over the world, they came to the banks of the *Cálì* river in *Sanc'ha-dwip*, where they ſaw a

* De Nat. Deor.

three-

three-eyed man ſitting with kingly ſtate, ſurrounded by his people and by animals of all ſorts, whom he was inſtructing in ſeveral arts according to their capacities: to his human ſubjects he was teaching agriculture, elocution, and writing. The deſcendants of PANDU having been kindly received by him, related their adventures at his requeſt; and he told them in return, that, having quarrelled in the manſion of BRAHMA' with DACSHA his father-in-law, he was curſed by MENU, and doomed to take the form of a *Mánava*, or *man*, whence he was named on earth 'AMANE'SWARA; that his faithful conſort transformed herſelf into the river *Cálì*, and purified his people, while he guided them with the ſtaff of empire, and gave them inſtruction, of which he found them in great need. The place where he reſided was called *A'manéſwara-ſt'hán*, or the ſeat of A'MAN or A'MON, which can be no other than the *Amonno* of Scripture, tranſlated *Dioſpolis* by the Seventy interpreters; but it was *Dioſpolis*, between the canals of the Delta, near the ſea and the lake *Manzalè*, for the Prophet NAHUM * deſcribes it as a town *ſituated among rivers, with waters round about it, and the ſea for its ramparts*; ſo that it could not be either of the towns, named alſo *Dioſpolis*, in Upper *Egypt*; and the *Hindu* author ſays expreſsly, that it lay to the north of *Himádri*.

Having before declared my opinion, that the *Noph* of the three greater Prophets was derived from *Nabhas*, or the ſky, and was properly called *Nabha-ìſwara-ſt'hán*, *Nabha-ſt'hán*, I have little to add here: HOSEA once calls it *Moph* †, and the *Chaldean* paraphraſt, *Maphes*; while *Rabbi* KIMCHI aſſerts, that *Moph* and *Noph* were one and the ſame town: the Seventy always render it *Memphis*, which *Copts* and *Arabs* pronounce *Menuf* or *Menf*; and, though I am well aware, that ſome travellers and men of learning deny the modern *Menf* to be on the ſite of *Memphis*, yet, in the former ſection, I have given my reaſons for diſſenting from them, and obſerved, that *Memphis* occupied a vaſt extent of ground along the *Nile*, conſiſting in fact of ſeveral towns or diviſions, which had become contiguous by the acceſſion of new buildings. May not the words *Noph* and *Menf* have been taken from *Nabha* and *Mánava*, ſince *Nabhómánava*, as a title of ISWARA, would ſignify the *celeſtial man*? The *Egyptian* prieſts had nearly the ſame ſtory, which we find in the *Puráns*; for they related, that the ocean formerly reached to the ſpot where *Memphis* was built by king MINES, MINAS, and MINEVAS, who forced the ſea back by altering the

* Ch. 3. v. 8. † Ch. 9. v. 6.

courſe of the *Nile*, which, depoſiting its mud in immenſe quantities, gradually formed the *Delta*.

DIOSPOLIS, diſtinguiſhed by the epithet *great*, was a name of *Thebes*, which was alſo called the City of the Sun *, from a celebrated temple dedicated to that luminary, which I ſuppoſe to be *Súryéſwara-ſt'hán* of the old *Hindu* writers: the following legend concerning it is extracted from the *Bháſcara-máhátmya*. The ſon of SO'MARA'JA, named PUSHPACE'TU, having inherited the dominions of his father, neglected his publick duties, contemned the advice of his miniſters, and abandoned himſelf to voluptuouſneſs; till BHI'MA, ſon of PA'MARA (or of an *outcaſt*), deſcended from the hills of *Níládri*, and laid ſiege to his metropolis: the prince, unable to defend it, made his eſcape, and retired to a wood on the banks of the *Cálì*. There, having bathed in the ſacred river, he performed penance for his former diſſolute life, ſtanding twelve days on one leg, without even taſting water, and with his eyes fixed on the Sun; the regent of which appeared to him in the character of SU'RYE'SWARA, commanding him to declare what he moſt deſired. "Grant me *mácſha*, or beatitude," ſaid PUSHPACE'TU, proſtrating himſelf before the deity; who bade him be patient, aſſured him that his offences were expiated, and promiſed to deſtroy his enemies with intenſe heat, but ordered him to raiſe a temple, inſcribed to SU'RYE'SWARA, on the very ſpot where he then ſtood, and declared, that he would efface the ſins of all ſuch pilgrims as ſhould viſit it with devotion: he alſo directed his votary, who became, after his reſtoration, a virtuous and fortunate monarch, to celebrate a yearly feſtival in honour of SU'RYA on the ſeventh lunar day in the bright half of *Mágha*. We need only add, that *Heliopolis* in lower *Egypt*, though a literal tranſlation of *Súrya-ſt'hán*, could not be the ſame place, as it was not on the banks of the *Nile*.

X. One of the wildeſt fictions, ever invented by Mythologiſts, is told in the *Pádma* and the *Bhágavat*; yet we find an *Egyptian* tale very ſimilar to it. The wife of CA'S'YA, who had been the *guru*, or ſpiritual guide, of CRISHNA, complained to the incarnate God, that the ocean had ſwallowed up her children near the plain of *Prabháſa*, or the weſtern coaſt of *Gurjara*; now called *Gujarat*; and ſhe ſupplicated him to recover them. CRISHNA haſteñed to the ſhore, and, being informed by the ſea-god that SANC'HA'SURA, or PA'NCHAJANYA, had carried away

* Diod. Sic. B. 2. c. 1.

the

the children of his preceptor, he plunged into the waves, and ſoon arrived at *Cuſha-dwíp*, where he inſtructed the *Cutila-céſas* in the whole ſyſtem of religious and civil duties, cooled and embelliſhed the peninſula, which he found ſmoking from the various conflagrations which had happened to it, and placed the government of the country on a ſecure and permanent baſis: he then diſappeared; and having diſcovered the haunt of SANC'HA'SURA, engaged and ſlew him, after a long conflict, during which the ocean was violently agitated, and the land overflowed; but, not finding the *Bráhmen's* children, he tore the monſter from his ſhell, which he carried with him as a memorial of his victory, and uſed afterwards in battle by way of a trumpet. As he was proceeding to *Varáha-dwíp*, or *Europe*, he was met by VARUNA, the chief God of the Waters, who aſſured him poſitively, that the children of CA'S'YA were not in his domains: the preſerving power then deſcended to *Yamapurì*, the infernal city, and, ſounding the ſhell *Pánchajanya*, ſtruck ſuch terror into YAMA, that he ran forth to make his proſtrations, and reſtored the children, with whom CRISHNA returned to their mother.

Now it is related by PLUTARCH *, that GARMATHONE, queen of *Egypt*, having loſt her ſon, prayed fervently to ISIS, on whoſe interceſſion OSIRIS deſcended to the ſhades and reſtored the prince to life; in which fable OSIRIS appears to be CRISHNA, the *black* divinity: *Garmatho*, or *Garbatho*, was the name of a hilly diſtrict, bordering on the land of the *Troglodytes*, or *Sanc'háſuras*; and *Ethiopia* was in former ages called *Egypt*. The flood in that country is mentioned by CEDRENUS, and ſaid to have happened fifty years after CECROPS, the firſt king of *Athens*, had begun his reign: *Abyſſinia* was laid waſte by a flood, according to the Chronicle of *Axum*, about 1600 years before the birth of CHRIST †; and CECROPS, we are told, began to reign 1657 years before that Epoch; but it muſt be confeſſed, that the chronology of ancient *Greece* is extremely uncertain.

XI. Having before alluded to the legends of GUPTA and CARDAMA, we ſhall here ſet them down more at large, as they are told in the *Puránas*, entitled *Brahmánda* and *Scanda*, the ſecond of which contains very valuable matter concerning *Egypt* and other countries in the weſt. SU'RYA having directed both Gods and men to perform ſacred rites in honour of VISHNU, for the purpoſe of counteracting the baneful influence of SANI, they all followed his directions, except MAHA'DE'VA, who thought ſuch homage inconſiſtent with his exalted character; yet he found it

* On Rivers, *art.* Nile.

† Bruce's Travels, Vol. I. 398.

neceſſary

neceſſary to lie for a time *concealed*, and retired to *Barbara* in *Sanc'ha-dwíp*, where he remained ſeven years *hidden* in the *mud*, which covered the banks of the *Cálì*: hence he acquired the title of GUPTE'SWARA. The whole world felt the loſs of his vivifying power, which would long have been ſuſpended, if MANDAPA, the ſon of CUSHMANDA, had not fled, to avoid the puniſhment of his vices and crimes, into *Cuſha-dwíp*; where he became a ſincere penitent, and wholly devoted himſelf to the worſhip of MAHA'DE'VA, conſtantly ſinging his praiſe, and dancing in honour of him: the people, ignorant of his former diſſolute life, took him for a holy man, and loaded him with gifts, till he became a chief among the votaries of the *concealed* God, and at length formed a deſign of reſtoring him to light. With this view he paſſed a whole night in *Cardama-ſt'hán*, chanting hymns to the mighty power of deſtruction and renovation, who, pleaſed with his piety and his muſick, ſtarted from the *mud*, whence he was named CARDAME'SWARA, and appeared openly on earth; but having afterwards met SANAISCHARA, who ſcornfully exulted on his own power, *in compelling the Lord of three Worlds to conceal himſelf in a fen*, he was abaſhed by the taunt, and aſcended to his palace on the top of *Cailáſa*.

Gupte'swara-ſthan, abbreviated into *Gupta*, on the banks of the *Nile*, is the famed town *Coptos*, called *Gupt* or *Gypt* to this day, though the *Arabs*, as uſual, have ſubſtituted their *káf* for the true initial letter of that ancient word: I am even informed, that the land of *Egypt* is diſtinguiſhed in ſome of the *Puránas* by the name of *Gupta-ſt'hán*; and I cannot doubt the information, though the original paſſages have not yet been produced to me. Near *Gupta* was *Cardamaſt'halì*, which I ſuppoſe to be *Thebes*, or part of it; and CADMUS, whoſe birth-place it was, I conceive to be ISWARA, with the title CARDAMA; who invented the *ſyſtem of letters*, or at leaſt arranged them as they appear in the *Sanſcrit* grammars: the *Greeks*, indeed, confounded CARDAME'SWARA with CARDAMA, father of VARUNA, who lived on the coaſt of *Aſia*; whence CADMUS is by ſome called an *Egyptian*, and, by others, a *Phenician*; but it muſt be allowed, that the writers of the *Puránas* alſo have cauſed infinite confuſion, by telling the ſame ſtory in many different ways; and the two CARDAMAS may, perhaps, be one and the ſame perſonage.

" CADMUS was born (ſays DIODORUS *) at *Thebes* in *Egypt*: he had ſeveral " ſons, and a daughter named SEMELE, who became pregnant, and, in the *ſeventh* " month, brought forth an imperfect male child, greatly reſembling OSIRIS; whence

* B. 1. c. 13.

" the

" the *Greeks* believed, that OSIRIS was the ſon of CADMUS and SEMELE." Now I cannot help believing, that OSIRIS of *Thebes* was ISWARA ſpringing, after his concealment for *ſeven* years, from the mud *(Cardama)* of the river *Syámalà*, which is a *Pauranic* name for the *Nile:* whatever might have been the grounds of ſo ſtrange a legend, it probably gavé riſe to the popular *Egyptian* belief, that the human race were produced from the mud of that river; ſince the appearance of CARDAME'SWARA reviviſied nature, and repleniſhed the earth with plants and animals.

XII. The next legend is yet ſtranger, but not more abſurd than a ſtory, which we ſhall find among the *Egyptians*, and which in part reſembles it. MAHA'DE'VA and PARVATI' were playing with dice at the ancient game of *Chaturanga*, when they diſputed and parted in wrath; the goddeſs retiring to the foreſt of *Gaurì*, and the god repairing to *Cuſha-dwìp:* they ſeverally performed rigid acts of devotion to the Supreme Being; but the fires which they kindled blazed ſo vehemently, as to threaten a general conflagration. The *Dévas* in great alarm haſtened to BRAHMA', who led them to MAHA'DE'VA, and ſupplicated him to recal his conſort; but the wrathful deity only anſwered, that ſhe muſt come by her own free choice: they accordingly diſpatched GANGA', the river goddeſs, who prevailed on PARVATI' to return to him on condition that his love for her ſhould be reſtored. The celeſtial mediators then employed CA'MA-DE'VA, who wounded SIVA with one of his flowery arrows; but the angry divinity reduced him to aſhes with a flame from his eye: PA'RVATI' ſoon after preſented herſelf before him in the form of a *Ciratì*, or daughter of a mountaineer, and ſeeing him enamoured of her, reſumed her own ſhape. In the place where they were reconciled a grove ſprang up, which was named *Cámavana*; and the relenting god, in the character of CA'ME'SWARA, conſoled the afflicted RETI, the widow of CA'MA, by aſſuring her that ſhe ſhould rejoin her huſband, when he ſhould be born again in the form of PRADYUMNA, ſon of CRISHNA, and ſhould put SAMBARA to death. This favourable prediction was in due time accompliſhed; and PRADYUMNA having ſprung to life, he was inſtantly ſeized by the demon 'SAMBARA, who placed him in a cheſt, which he threw into the ocean; but a large fiſh which had ſwallowed the cheſt, was caught in a net, and carried to the palace of a tyrant, where the unfortunate RETI had been compelled to do menial ſervice: it was her lot to open the fiſh, and ſeeing an infant in the cheſt, ſhe nurſed him in private, and educated him till he had ſufficient ſtrength to deſtroy the malignant 'SAMBARA. He had before conſidered RETI as his *mother*; but the minds of them both being irradiated, the prophecy of MAHA'DE'VA was remembered,

membered, and the god of Love was again united with the goddeſs of Pleaſure. One of his names was PUSHPADHANVA, or *with a flowery bow*; and he had a ſon VISVADHANVA, from whom VIJAYADHANVA, and CIRTIDHANVA lineally ſprang; but the two laſt, with whom the race ended, were ſurnamed CAUN'APA, for a reaſon which preſently ſhall be diſcloſed.

VISVADHANVA, with his youthful companions, was hunting on the ſkirts of HIMA'LAYA, where he ſaw a white elephant of an amazing ſize, with four tuſks, who was diſporting himſelf with his females: the prince imagined him to be AIRA'VATA, the great elephant of INDRA, and ordered a circle to be formed round him; but the noble beaſt broke through the toils, and the hunters purſued him from country to country, till they came to the burning ſands of *Barbara*, where his courſe was ſo much impeded, that he aſſumed his true ſhape of a *Rácſhaſa*, and began to bellow with the ſound of a large drum, called *dundu*, from which he had acquired the name of DUNDUBHI. The ſon of CAMA, inſtead of being diſmayed, attacked the giant, and, after an obſtinate combat, ſlew him; but was aſtoniſhed on ſeeing a beautiful youth riſe from the bleeding body, with the countenance and form of a *Gandharva*, or celeſtial quiriſter, who told him, before he vaniſhed, that "he had "been expelled for a time from the heavenly manſions, and, as a puniſhment for a "great offence, had been condemned to paſs through a mortal ſtate in the ſhape of "a giant, with a power to take other forms; that his crime was expiated by death, "but that the prince deſerved, and would receive, chaſtiſement, for moleſting an "elephant, who was enjoying innocent pleaſures." The place where the white elephant reſumed the ſhape of a *Rácſhaſa*, was called *Rácſhaſa-ſt'hán*; and that where he was killed, *Dandubhi-mára-ſt'hán*, or *Rácſhaſa-mócſhana*, becauſe he there acquired *mócſha*, or a releaſe from his mortal body: it is declared in the *Uttara-charitra*, that a pilgrimage to thoſe places, with the performance of certain holy rites, will ever ſecure the pilgrims from the dread of giants and evil ſpirits.

CANTAÇA, the younger brother of DUNDUBHI, meditated vengeance, and aſſuming the character of a *Bráhmen*, procured an introduction to VISVADHANWA as a perſon eminently ſkilled in the art of cookery: he was accordingly appointed chief cook, and, a number of *Bráhmens* having been invited to a ſolemn entertainment, he ſtewed a *cun'apa* or *corpſe* (ſome ſay *putrid fiſh*), and gave it in ſoup to the gueſts; who, diſcovering the abominable affront, were enraged at the king, telling him, that he ſhould live twelve years as a night-wanderer feeding on *cun'apas*, and that *Caunapa* ſhould be the ſurname of his deſcendants: ſome add, that as ſoon as this

this curſe was pronounced, the body of VISVADHANWA became feſtering and ulcerous, and that his children inherited the loathſome diſeaſe.

We find clear traces of this wild ſtory in *Egypt*; which from CA'MA was formerly named *Chemia*, and it is to this day known by the name of *Chemi*, to the few old *Egyptian* families that remain: it has been conjectured, that the more modern *Greeks* formed the word *Chemia* from this name of *Egypt*, whence they derived their firſt knowledge of *Chemiſtry*. The God CAIMIS was the ſame, according to PLUTARCH, with ORUS the Elder, or one of the ancient APOLLOS; but he is deſcribed as very young and beautiful, and his conſort was named RHYTIA; ſo that he bears a ſtrong reſemblance to CA'MA, the huſband of RETI, or the CUPID of the *Hindus:* there were two Gods named *Cupid*, ſays ÆLIAN *, the elder of whom was the ſon of LUCINA, and the lover, if not the huſband, of VENUS: the younger was her ſon. Now SMU or TYPHON, ſays HERODOTUS, wiſhed to deſtroy ORUS, whom LATONA concealed in a grove of the iſland *Chemmis*, in a lake near *Butus:* but SMU, or SAMBAR, found means to kill him, and left him in the waters, where ISIS found him and reſtored him to life †. ÆLIAN ſays, that the Sun, a form of OSIRIS, being diſpleaſed with CUPID, threw him into the ocean, and gave him a ſhell for his abode: SMU, we are told, was at length defeated and killed by ORUS. We have ſaid, that CA'MA was born again in this lower world, or became *Adhóyóni*, not as a puniſhment for his offence, which that word commonly implies, but as a mitigation of the chaſtiſement which he had received from ISWARA, and as a favour conferred on him in becoming a ſon of VISHNU: this may, therefore, be the origin both of the name and the ſtory of ADONIS; and the yearly lamentations of the *Syrian* damſels may have taken riſe from the ditties chanted by RETI, together with the *Apſaraſes*, or nymphs, who had attended CA'MA, when he provoked the wrath of MAHA'DE'VA: one of the ſweeteſt meaſures in *Sanſcrit* proſody has the name of *Reti vilápa*, or the *dirge* of RETI.

In the only remaining accounts of *Egyptian* Mythology, we find three kings of that country, named CAMEPHIS, which means in *Coptick*, according to JABLONSKI, the guardian divinity of *Egypt* ‡: the hiſtory of thoſe kings is very obſcure; and whether they have any relation to the three deſcendants of CA'MA, I cannot pretend to determine. The *Caunapas* appear to be the Νέκυες ἡμίθεοι ſuppoſed to have reigned in *Egypt*; for we learn from SYNCELLUS ‖, that the *Egyptians* had a ſtrange

* B. 14. c. 28.

† Diod. Sic. B. 14.

‡ See Alphab. Tibet. p. 145.

‖ P. 40, cited by Mr. BRYANT.

tale

tale concerning a dynaſty of *dead men*; that is, according to the *Hindus*, of men afflicted with ſome ſphacelous diſorder, and moſt probably, with *Elephantiaſis*. The ſeat of CUNAPA ſeems to have been *Canobus*, or *Canopus*, not far from *Alexandria*: that CANOPUS died there of a loathſome diſeaſe, was aſſerted by the *Greek* Mythologiſts, according to the writer of the *Great Etymological Dictionary* under the word Ἐλένειον; and he is generally repreſented in a black ſhroud, with a cap cloſely fitted to his head, as if his dreſs was intended to conceal ſome offenſive malady; whence the potters of *Canopus* often made pitchers with covers in the form of a cloſe cap. His tomb was to be ſeen at *Helenium*, near the town which bore his name; but that of his wife (who, according to EPIPHANIUS, was named CUMENUTHIS) was in a place called *Menuthis*, at the diſtance of two ſtadia. There were two temples at *Canopus*; the more ancient inſcribed to HERCULES, which ſtood in the ſuburbs *, and the more modern, but of greater celebrity, raiſed in honour of SERAPIS †. Now there ſeems to be no ſmall affinity between the characters of DUNDHU and ANTÆUS; of VISVADHANWA and HERCULES; many heroes of antiquity (CICERO reckons up *ſix*, and and others *forty-three*, ſome of whom were peculiar to *Egypt*) had the title of HERCULES; and the *Greeks*, after their faſhion, aſcribed to one the mighty achievements of them all. ANTÆUS was, like DUNDHU, a favourite ſervant of OSIRIS, who intruſted part of *Egypt* to his government; but, having in ſome reſpect miſbehaved, he was depoſed, abſconded, and was hunted by HERCULES, through every corner of *Africa*: hence I conclude, that *Dandh'a-mara-ſt'hán* was the town called *Anteu* by the *Egyptians*, and *Antæopolis* by the *Greeks*, where a temple was raiſed and ſacrifices made to ANTÆUS, in hope of obtaining protection againſt other demons and giants. *Rácſhaſa-ſt'hán* ſeems to be the *Rhacotis* of the *Greeks*, which CEDRENUS calls in the oblique caſe *Rhakhaſten*: it ſtood on the ſite of the preſent *Alexandria*, and muſt in former ages have been a place of conſiderable note; for PLINY tells us, that an old king of *Egypt*, named MESPHEES, had erected two obeliſks in it, and that ſome older kings of that country had built forts there, with garriſons in them, againſt the pirates who infeſted the coaſt ‡. When HERCULES had put on the fatal robe, he was afflicted, like VISVADHANWA, with a loathſome and excruciating diſeaſe, through the vengeance of the dying NESSUS: others relate (for the ſame fable is often differently told by the *Greeks*), that HERCULES was covered with gangrenous ulcers from the venom of the *Lernean ſerpent*,

* Herod. B. 2. † Strabo, B. 17. ‡ Lib. 36. cap. 9.

and

and was cured in *Phenice*, at a place called *Ake* (the *Acco* of Scripture) by the juice of a plant, which abounds both in that ſpot and on the banks of the *Nile* *. The *Grecks*, who certainly migrated from *Egypt*, carried with them the old *Egyptian* and *Indian* legends, and endeavoured (not always with ſucceſs) to appropriate a foreign ſyſtem to their new ſettlements: all their heroes or demigods, named HERACLES by them, and HERCULES by the *Latians* (if not by the *Æolians*), were ſons of JUPITER, who is repreſented in *India* both by HERA, or SIVA, and by HERI or VISHNU; nor can I help ſuſpecting, that HERCULES is the ſame with HERACULA, commonly pronounced *Hercul*, and ſignifying the *race* of HERA or HERI. Thoſe heroes are celebrated in the concluding book of the *Mahábhárat*, entitled *Herivanſa*; and ARRIAN ſays, that the *Suraſeni*, or people of *Mat'hurà*, worſhipped HERCULES, by whom he muſt have meant CRISHNA and his deſcendants.

In the *Canopean* temple of SERAPIS, the ſtatue of the god was decorated with a *Cerberus* and a Dragon; whence the learned *Alexandrians* concluded, that he was the ſame with PLUTO: his image had been brought from *Sinope* by the command of one of the *Ptolemies*, before whoſe time he was hardly known in *Egypt*. SERAPIS, I believe, is the ſame with YAMA or PLUTO; and his name ſeems derived from the compound *Aſrapa*, implying *thirſt of blood*: the ſun in *Bhádra*, had the title of YAMA, but the *Egyptians* gave that of PLUTO, ſays PORPHYRY, to the great luminary near the winter ſolſtice †. YAMA, the regent of hell, has two dogs, according to the *Puránas*, one of them, named CERBURA and SABALA, or *varied*; the other SYA'MA, or *black*; the firſt of whom is alſo called *Tris'iras*, or *with three heads*, and has the additional epithets of *Calmáſha*, *Chitra*, and *Cirmira*, all ſignifying *ſtained*, or *ſpotted*: in PLINY, the words *Cimmerium* and *Cerberion* ſeem uſed as ſynonymous ‡; but, however that may be, the CERBURA of the *Hindus* is indubitably the CERBURUS of the *Greeks*. The dragon of SERAPIS, I ſuppoſe to be the *Séſhanága*, which is deſcribed as in the infernal regions by the author of the *Bhágavat*.

Having now cloſed my remarks on the parallel divinities of *Egypt* and *India*, with references to the ancient geography of the countries adjacent to the *Nile*, I cannot end this ſection more properly than with an account of the *Jainas* and the three principal deities of that ſect; but the ſubject is dark, becauſe the *Bráhmens*, who abhor the followers of JINA, either know little of them, or are unwilling to make

* Steph. Byzant. under *Ake*. † *Cited by* Euſeb. ‡ Lib. 6. c. 6.

them

them the ſubject of converſation: what they have deigned to communicate, I now offer to the ſociety.

Toward the middle of the period, named *Padmacalpa*, there was ſuch a want of rain for many ſucceſſive years, that the greateſt part of mankind periſhed, and BRAHMA' himſelf was grieved by the diſtreſs which prevailed in the univerſe; RIPUNJAYA then reigned in the weſt of *Cuſha-dwíp*, and, ſeeing his kingdom deſolate, came to end his days at *Cáſì*. Here we may remark, that *Cáſì*, or *the ſplendid* (a name retained by PTOLEMY in the word *Caſſidia*), is called *Benáres* by the *Moguls*, who have tranſpoſed two of the letters in its ancient epithet *Váránesì*; a name, in ſome degree preſerved alſo by the *Greeks* in the word *Aornis* on the *Ganges*; for when old *Cáſi*, or *Caſſidia*, was deſtroyed by BHAGAWAN, according to the *Puránas*, or by BACCHUS, according to DIONYSIUS PERIGETES, it was rebuilt at ſome diſtance from its former ſite, near a place called *Sívabar*, and had the name of *Váránasì*, or *Aornis*, which we find alſo written *Avernus*: the word *Váránasì* may be taken, as ſome *Bráhmens* have conjectured, from the names of two rivulets, *Varuna* and *Asì*, between which the town ſtands; but more learned grammarians deduce it from *vara*, or *moſt excellent*, and *anas*, or *water*, whence come *Varánasì*, an epithet of *Gangà* and *Váránasì* (formed by PA'NINI's rule) of the city raiſed on her bank. To proceed: BRAHMA' offered RIPUNJAYA the dominion of the whole earth, with *Cáſi* for his metropolis, directing him to collect the ſcattered remains of the human race, and to aid them in forming new ſettlements: telling him, that his name ſhould thenceforth be DIVO'DA'SA, or *Servant of Heaven*. The wiſe prince was unwilling to accept ſo burdenſome an office, and propoſed as the condition of his acceptance, that the glory which he was to acquire ſhould be excluſively his own: and that no *Dévátà* ſhould remain in his capital: BRAHMA', not without reluctance, aſſented, and even MAHA'DE'VA, with his attendants, left their favourite abode at *Cáſi*, and retired to the *Mandara* hills near the ſource of the *Ganges*. The reign of DIVODAS began with acts of power which alarmed the Gods; he depoſed the Sun and Moon from their ſeats, and appointed other regents of them, making alſo a new ſort of fire: but the inhabitants of *Cáſi* were happy under his virtuous government. The deities, however, were jealous, and MAHA'DE'VA, impatient to reviſit his beloved city, prevailed on them to aſſume different ſhapes, in order to ſeduce the king and his people. DE'VI' tempted them, without ſucceſs, in the forms of ſixty-four *Yógínis*, or female anchorets: the twelve *A'dityas*, or Suns, undertook to corrupt them; but, aſhamed of their failure, remained in the holy town: next appeared GANE'SA, commiſſioned

commiſſioned by his father MAHA'DE'VA, in the garb of an *aſtronomer*, attended by others of his profeſſion; and aſſiſted by thirty-ſix *Vainâyacis*, or *Gánéſis*, who were his female deſcendants; and by their help he began to change the diſpoſition of the people, and to prepare them for the coming of the three principal deities.

VISHNU came in the character of JINA, inveighing againſt ſacrifices, prayers, pilgrimages, and the ceremonies preſcribed by the *Véda*, and aſſerting that all true religion conſiſted *in killing no creature that had life:* his conſort JAYA'DE'VI preached this new doctrine to her own ſex; and the inhabitants of *Cáſi* were perplexed with doubts. He was followed by MAHA'DE'VA, in the form of ARHAN or MAHIMAN, accompanied by his wife MAHA'MA'NYA, with a multitude of male and female attendants: he ſupported the tenets of JINA, alleging his own ſuperiority over BRAHMA' and VISHNU, and referring, for the truth of his allegation, to JINA himſelf, who fell proſtrate before him; and they travelled together over the world, endeavouring to ſpread their hereſies. At length appeared BRAHMA' in the figure of BUDDHA, whoſe conſort was named VIJNYA: he confirmed the principles inculcated by his predeceſſors, and, finding the people ſeduced, he began, in the capacity of a *Bráhmen*, to corrupt the mind of the king. DIVO'DA'SA liſtened to him with complacency, loſt his dominion, and gave way to MAHA'DE'VA, who returned to his former place of reſidence; but the depoſed king, reflecting too late on his weakneſs, retired to the banks of the *Gómatì*, where he built a fortreſs, and began to build a city on the ſame plan with *Cáſì:* the ruins of both are ſtill to be ſeen near *Chanwoc*, about *fourteen* miles above the confluence of the *Gumti* with the *Ganges*, and about twenty to the north of *Benáres*. It is added, that MAHA'DE'VA, having vainly contended with the numerous and obſtinate followers of the new doctrine, reſolved to exterminate them; and, for that purpoſe, took the ſhape of SANCARA, ſurnamed *Ácháryа*, who explained the *Védas* to the people, deſtroyed the temples of the *Jainas*, cauſed their books to be burned, and maſſacred all who oppoſed him. This tale, which has been extracted from a book, entitled *Sancara-prádur-bhâva*, was manifeſtly invented for the purpoſe of aggrandizing SANCARA'CHA'RYA, whoſe expoſition of the *Upaniſhads* and comment on the *Védánta*, with other excellent works, in proſe and verſe, on the being and attributes of God, are ſtill extant and ſeduloufly ſtudied by the *Védánti* ſchool: his diſciples conſidered him as an incarnation of MAHA'DE'VA; but he tarniſhed his brilliant character, by fomenting the religious war, in which moſt of the perſecuted *Jainas* were ſlain or expelled from theſe parts of *India*; very few

of

of them now remaining in the *Gangetick* provinces, or in the weſtern peninſula, and thoſe few living in penury and ignorance, apparently very wretched, and extremely reſerved on all ſubjects of religion. Theſe heterodox *Indians* are divided into three ſects: the followers of JINA we find chiefly diſperſed on the borders of *India*; thoſe of BUDDHA, in *Tibet*, and other vaſt regions to the north and eaſt of it; while thoſe of ARHAN (who are ſaid to have been anciently the moſt powerful of the three), now reſide principally in *Siam*, and in other kingdoms of the eaſtern peninſula. ARHAN is reported to have left impreſſions of his feet on rocks in very remote countries, as monuments of his very extenſive travels: the moſt remarkable of them is in the iſland of *Sinhal*, or *Silan*, and the *Siameſe* revere it under the name of *Prapút*, from the *Sanſcrit* word *Prapáda*; but the *Bráhmens* inſiſt that it was made by the foot of RA'VANA. Another impreſſion of a foot, about two cubits long, was to be ſeen, in the time of HERODOTUS, on the banks of the river *Tyras*, now called the *Dneiſter*; the people of that country were certainly *Bauddhas*, and their high prieſt, who reſided on mount *Gocajon*, at preſent named *Casjon*, was believed to be regenerate, exactly like the *Lama* of *Tibet*.

As to JINA, he is ſaid, by his followers, to have aſſumed twenty-four *rúpas*, or *forms*, at the ſame time, for the purpoſe of diſſeminating his doctrine, but to have exiſted really and wholly in all and each of thoſe forms at once, though in places very remote; but thoſe *rúpas* were of different orders, according to certain myſterious diviſions of twenty-four, and the *forms* are conſidered as more or leſs perfect, according to the greater or leſs perfection of the component numbers and the ſeveral compounds, the leading number being *three*, as an emblem of the *Trimúrti*: again the twenty-four *rúpas*, multiplied by thoſe numbers, which before were uſed as diviſors, produce other *forms*; and thus they exhibit the appearances of JINA in all poſſible varieties and permutations, compriſing in them the different productions of nature.

Moſt of the *Bráhmens* inſiſt, that the BUDDHA, who perverted DIVODA'SA, was not the *ninth* incarnation of VISHNU, whoſe name, ſome ſay, ſhould be written BAUDDHA, or BO'DDHA; but not to mention the *Amarcóſh*, the *Mugdhabódh*, and the *Gítágóvinda*, in all of which the ninth *avatár* is called BUDDHA, it is expreſsly declared in the *Bhágavat*, that VISHNU ſhould appear *ninthly* in the form of "BUDDHA, ſon of JINA, for the purpoſe of confounding the *Daityas*, at a place "named *Cícata*, when the *Cáli* age ſhould be completely begun." On this paſſage it is only remarked by SRI'DHARA *Swámi*, the celebrated commentator, that JINA

and

and AJINA were two names of the ſame perſon, and that *Cícata* was in the diſtrict of *Gayà*; but the *Pandits*, who aſſiſted in the *Perſian* tranſlation of the *Bhágavat*, gave the following account of the ninth *avatára*. The *Daityas* had aſked INDRA, by what means they could attain the dominion of the world; and he had anſwered, that they could only attain it by ſacrifice, purification, and piety: they made preparations accordingly for a ſolemn ſacrifice and a general ablution; but VISHNU, on the interceſſion of the *Dévas*, deſcended in the ſhape of a *Sannyasì*, named BUDDHA, with his hair braided in a knot on the crown of his head, wrapt in a ſqualid mantle, and with a broom in his hand. BUDDHA preſented himſelf to the *Daityas*, and was kindly received by them; but, when they expreſſed their ſurprize at his foul veſture, and the ſingular implement which he carried, he told them, that *it was cruel, and conſequently impious, to deprive any creature of life*; that, whatever might be ſaid in the *Védas*, every *ſacrifice* of an *animal* was an abomination, and that *purification* itſelf was wicked, becauſe ſome ſmall inſect might be killed in bathing or waſhing cloth; that he never bathed, and conſtantly ſwept the ground before him, leaſt he ſhould tread on ſome innocent reptile: he then expatiated on the inhumanity of giving pain to the playful and harmleſs kid, and reaſoned with ſuch eloquence, that the *Daityas* wept, and abandoned all thought of ablution and ſacrifice. As this *Máyà*, or *illuſive appearance*, of VISHNU, fruſtrated the ambitious project of the *Daityas*, one of BUDDHA's titles is the ſon of MA'YA': he is alſo named SA'CYASINHA, or the *Lion* of the race of *Sácya*, from whom he deſcended, an appellation which ſeems to intimate, that he was a conqueror, or a warrior, as well as a philoſopher. Whether BUDDHA was a ſage or a hero, the leader of a colony, or a whole colony perſonified, whether he was black or fair, whether his hair was curled or ſtraight, if indeed he had any hair (which a commentator on the *Bhágavat* denies), whether he appeared in ten, or two hundred, or a thouſand years, after CRISHNA, it is very certain that he was not of the true *Indian* race: in all his images, and in the ſtatues of *Bauddhas*, male and female, which are to be ſeen in many parts of theſe provinces and in both peninſulas, there is an appearance of ſomething *Egyptian* or *Ethiopian*; and both in features and dreſs, they differ widely from the ancient *Hindu* figures of heroes and demigods. SA'CYA has a reſemblance in ſound to SISAC, and we find CHA'NAC abbreviated from CHA'NACYA; ſo that SISAC and SESONCHOSIS may be corrupted from SA'CYASINHA, with a tranſpoſition of ſome letters, which we know to be frequent in proper names, as in the word *Banáres*. Many of his ſtatues in *India* are coloſſal, nearly naked, and uſually

repreſented

repreſented ſitting in a contemplative attitude; nor am I diſinclined to believe, that the famed ſtatue of MEMNON, in *Egypt*, was erected in honour of MAHIMAN, which has MAHIMNA in one of its oblique caſes, and the *Greeks* could hardly have pronounced that word otherwiſe than MAIMNA, or MEMNA: they certainly uſed *Mai* inſtead of *Mahà*, for HESYCHIUS expreſsly ſays, Μαὶ, μεγά. Ἰνδοί: and *Mai* ſignifies *great* even in modern *Coptick*. We are told, that MAHIMAN, by his wife MAHA'MA'NYA', had a ſon named SHAMANA CARDAMA, who ſeems to be the SAMMANO CODOM of the *Bauddhas*, unleſs thoſe laſt words be corrupted from SAMANTA GO'TAM, which are found in the *Amarcóſh* among BUDDHA's names. CARDAM, which properly means *clay* or *mud*, was the firſt created man, according to ſome *Indian* legends, but the *Puránas* mention about ſeven or eight, who claimed the priority of creation; and ſome *Hindus*, deſirous of reconciling the contradiction, but unwilling to admit that the ſame fact is differently related, and the ſame perſon differently named, inſiſt that each was the firſt man in his reſpective country. Be this as it may, CARDAMA lived in *Varuna-c'handa*, ſo called from his ſon VARUNA, the god of ocean, where we ſee the ground-work of the fable concerning PALÆMON, or MELICERTUS, grandſon of CADMUS: now that *c'handa*, or diviſion of *Jambudwíp* compriſed the modern *Perſia*, *Syria*, and *Aſia* the Leſs; in which countries we find many traces of MAHIMAN and his followers, in the ſtupendous edifices, remarkable for their magnificence and ſolidity, which the *Greeks* aſcribed to the *Cyclopes*. The walls of *Suſa*, about ſixteen miles in circumference, were built by the father of MEMNON; the citadel was called *Memnonium*, and the town *Memnonia*; the palace is repreſented by ÆLIAN as amazingly ſumptuous, and STRABO compares its ancient walls, citadels, temples, and palace to thoſe of *Babylon*; a noble high road through the country was attributed to MEMNON; one tomb near *Troy* was ſuppoſed to be his, and another in *Syria*; the *Ethiopians*, according to DIODORUS of *Sicily*, claimed MEMNON as their countryman, and a nation in *Ethiopia* were ſtyled *Memnones*; on the borders of that country and of *Egypt*, ſtood many old palaces, called *Memnonian*; part of *Thebes* had the name of *Memnonium*; and an aſtoniſhing building at *Abydus* was denominated MEMNON's palace; STRABO ſays, that many ſuppoſed ISMANDES to have been the ſame with MEMNON, and conſequently they muſt have thought the Labyrinth a *Memnoniah* ſtructure *.

DIVO'DA'SA, pronounced in the popular dialects DIODA'S, reigned over ſome

* Herod. V. 54. Æl. XIII. 18. Diod. III. 69. Strab. XV. p. 728. XVII. p. 813.

weſtern

weſtern diſtricts of *Cuſha*-dwíp *within*, which extended from the ſhores of the *Mediterranean* to the banks of the *Indus*; and he became, we find, the firſt mortal king of *Varânes:* he ſeems to have been the HERCULES DIODAS mentioned by EUSEBIUS, who flouriſhed in *Phenice*, and, it is ſuppoſed, about 1524 years before our era; but, in my humble opinion, we cannot place any reliance on ſuch chronological calculations; which always err on the ſide of antiquity. The three ſects of JINA, MAHIMAN, and BUDDHA, whatever may be the difference between them, are all named BAUDDHAS; and, as the chief law, in which, as the *Bráhmens* aſſert, they make virtue and religion conſiſt, is *to preſerve the lives of all animated beings*, we cannot but ſuppoſe, that the founder of their ſect was BUDDHA, the ninth *avatár*, who in the *Agnipurán*, has the epithet of *Sacrípá*, or Benevolent, and, in the *Gitágóvinda*, that of *Sadaya-hrídaya*, or Tender-hearted: it is added, by JAYADE'VA, that "he cenſured the whole *Véda*, becauſe it preſcribed the immolation of cattle." This alone, we ſee, has not deſtroyed their veneration for him; but they contend that atheiſtical dogmas have been propagated by modern *Bauddhas*, who were either his diſciples, or thoſe of a younger BUDDHA, or ſo named from *buddhi*, becauſe they admit no ſupreme divinity, but *intellect*; they add, that even the old *Jainas*, or *Jayanas*, acknowledged no gods but JYA', or Earth, and VISHNU, or Water; as DERIADES (perhaps DURYO'DHAN) is introduced by NONNUS boaſting, that Water and Earth were his only deities; and reviling his adverſaries, for entertaining a different opinion *; ſo that the *Indian* war, deſcribed in the *Dionyſiacks*, aroſe probably from a religious quarrel. Either the old *Bauddhas* were the ſame with the *Cutilacéſas*, or nearly allied to them; and we may ſuſpect ſome affinity between them and the *Pális*, becauſe the ſacred language of *Siam*, in which the laws of the *Bauddhas* are compoſed, is properly named *Páli*; but a complete account of BUDDHA will then only be given, when ſome ſtudious man ſhall collect all that relates to him in the *Sanſcrit* books, particularly in the *Váyu-purán*, and ſhall compare his authorities with the teſtimonies, drawn from other ſources by KÆMPFER, GIORGI, TACHARD, DE LA LOUBÈRE, and by ſuch as have acceſs to the literature of *China*, *Siam*, and *Japan*.

* Dionyſiac. B. 21, v. 247, &c. 259, &c.

SECTION

SECTION THE THIRD.

WE come now to the demigods, heroes, and ſages, who at different times viſited *Egypt* and *Ethiopia*, ſome as vindictive conquerors, and ſome as inſtructors in religion and morality.

I. PE'T'HI'NA'S, or PI'T'HE'NA'S, was a *Rĭſhi*, or holy man, who had long reſided near Mount *Himàlaya*, but at length retired to the places of pilgrimage on the banks of the *Cálì*, deſigning to end his days there in the diſcharge of his religious duties: his virtues were ſo tranſcendent, that the inhabitants of the countries bordering on that river, inſiſted on his becoming their ſovereign, and his deſcendants reigned over them to the *thirteenth* generation; but his immediate ſucceſſor was only his adopted ſon. The following ſeries of *fifteen* kings may conſtitute, perhaps, the dynaſty; which, in the hiſtory of *Egypt*, is called the *Cynick Circle:*

PE'T'HI'NA'S.

Pai't'hínaſi,
Iſhténás,
Yaſhténás,
Caſhténás,
Juſhténás,
Puſhténás,
Suſhténás,
Crĭtriménás,
Carmanyénas,
Pit'hini,
Pát'hini.
Páttyams'uca,
Pé't'hi-s'uca,
Mèd'hí-s'uca.

Each of thoſe princes is believed to have built a place of worſhip, near which he uſually reſided; but of the fifteen temples, or conſecrated edifices, we can only aſcertain the ſituation of *ſeven* with any degree of accuracy.

The founder of the family was a pious and excellent prince, obſerving in all reſpects the ordinances of the *Véda:* his name is to this day highly venerated by the *Bráhmens*; many ſacerdotal families in *India* boaſt of their deſcent from him; and the laws of PAIT'HI'NASI are ſtill extant, in an ancient ſtyle and in modulated proſe; among the many tracts which collectively form the *Dherma-Sáſtra*. It muſt be obſerved, that he was often called PI'T'HE'RISHI, or PI'T'HERISHI; and his place of reſidence, *Pit'hé-rĭſhi-ſt'hán*; but the ſhort vowel *rĭ* has the ſound of *rŭ* in the

the weſtern pronunciation, like the firſt ſyllable of *Richard* in ſome *Engliſh* counties: thus, in ſome parts of *India*, *amrĭta*, or *ambroſia*, is pronounced *amrŭt*, whence I conjecture, that the ſeat of *Pit'hé-ruſhi* was the *Pathros* of Scripture, called *Phatures* by the Seventy, and *Phatori* by EUSEBIUS, which gave its appellation to the *Phaturitic* nome of PLINY. Some imagine *Phaturis* to have been *Thebes*, or *Dioſpolis*; but PLINY mentions them both as diſtinct places, though, from his context, it appears that they could not be far aſunder; and I ſuppoſe *Phaturis* to be no other than the *Tathyris* of PTOLEMY, which he places at no great diſtance from the *Memnonium*, or weſtern ſuburb of *Thebes*; and, in the time of PTOLEMY, the nome of *Phaturis* had been annexed to that of *Dioſpolis*, ſo that its capital city became of little importance: we took notice, in the firſt ſection, that the *Ethiopians*, who, from a defect in their articulation, ſay TAULOS inſtead of PAULOS, would have pronounced *Tithoes* for *Pithoes*, and *Tathuris* for *Pathuris*.

Though we before gave ſome account of the fabulous RA'HU and the *Grahas*, yet it may not be ſuperfluous to relate their ſtory in this place at greater length. RA'HU was the ſon of CAS'YAPA and DITI, according to ſome authorities; but others repreſent SINHICA' (perhaps the *Sphinx*) as his natural mother: he had four arms; his lower parts ended in a tail like that of a dragon; and his aſpect was grim and gloomy, like the *darkneſs* of the chaos, whence he had alſo the name of TAMAS. He was the adviſer of all miſchief among the *Daityas*, who had a regard for him; but among the *Dévatás* it was his chief delight to ſow diſſention; and, when the gods had produced the *amrit* by churning the ocean, he diſguiſed himſelf like one of them, and received a portion of it; but the Sun and Moon having diſcovered his fraud, VISHNU ſevered his head and two of his arms from the reſt of his monſtrous body. That part of the nectareous fluid which he had time to ſwallow, ſecured his immortality: his trunk and dragon-like tail fell on the mountain of *Malaya*, where MINI, a *Brahmen*, carefully preſerved them by the name of CE'TU; and, as if a complete body had been formed from them, like a diſmembered polype, he is even ſaid to have adopted CE'TU as his own child. The head with two arms fell on the ſands of *Barbara*, where PI'T'HE'NA'S was then walking with SINHICA', by ſome called his wife: they carried the *Daitya* to their palace, and adopted him as their ſon; whence he acquired the name of PAIT'HE'NASI. This extravagant fable is, no doubt, aſtronomical; RA'HU and CE'TU being clearly the *nodes*, or what aſtrologers call the *head* and *tail* of the dragon: it is added, that they appeaſed VISHNU, and obtained re-admiſſion to the firmament, but were no longer viſible from the

earth, their enlightened ſides being turned from it; that RA'HU ſtrives during eclipſes, to wreak vengeance on the Sun and Moon, who detected him; and that CE'TU often appears as a comet, a whirlwind, a fiery meteor, a water-ſpout, or a column of ſand. From PAITHI'NA's the *Greeks* appear to have made *Pythonos* in their oblique caſe; but they ſeem to have confounded the ſtories of PYTHON and TYPHON, uniting two diſtinct perſons in one *. PAIT'HE'NASI, who reigned on the banks of the *Cálì* after PIT'HE'NAS his protector, I ſuppoſe to be TYPHON, TYPHAON, or TYPHŒUS: he was an uſurper and a tyrant, oppreſſing the *Dévatás*, encouraging the *Daityas*, and ſuffering the *Védas* to be neglected. HERODOTUS repreſents him, like RA'HU, as conſtantly endeavouring to deſtroy APOLLO and DIANA †; and the Mythologiſts add, that he was thunderſtruck by JUPITER, and fell into the quickſands of the lake *Sirbonis*, called alſo *Sirbon* and *Sarbonis:* now *Swarbhánu*, one of his names, ſignifies *Light of Heaven*, and, in that character, he anſwers to LUCIFER. The fall of that rebellious angel is deſcribed by ISAIAH, who introduces him ſaying, that "he would exalt his throne above the ſtars of "GOD, and would ſit on the mount of the congregation in the ſides of the North:" the heavenly *Méru* of the *Puránas*, where the principal *Dévas* are ſuppoſed to be ſeated, is not only in the north, but has alſo the name of *Sabhá*, or the *congregation*. Fifty-ſix comets are ſaid, in the *Chintámani*, to have ſprung from CE'TU; and RA'HU had a numerous progeny of *Gráhas*, or crocodiles: we are told by ÆLIAN, that TYPHON aſſumed the form of a crocodile ‡, and RA'HU was often repreſented in the ſhape of that animal, though he is generally deſcribed as a dragon. The conſtellation of the dragon is by the *Japaneſe* called the *Crocodile*; and the ſixth year of the *Tartarian* cycle has the ſame appellation: it is the very year, which the *Tibetians* name the year of Lightning, alluding to the dragon, who was ſtricken by it ||. A real tyrant of *Egypt* was, probably, ſuppoſed to be RA'HU, or TYPHON, in a human ſhape; for we find, that he was actually expelled from that country together with his *Grahas:* I have not yet been able to procure a particular account of their expulſion. The *ſt'hán* of RA'HU, or PAITHI'NASI, named alſo PAIT'HI, ſeems to have been the town of *Pithom* on the borders of *Egypt:* the Seventy wrote it *Peitho*, and HERODOTUS calls it *Patumos*; but, the *ſecond* caſe in *Sanſcrit* being generally affected in the weſtern dialects, we find it written *Phithom*

* Plut. Iſis and Oſiris.

† B. 2. c. 156.

‡ On Animals, B. 10. c. 21.

|| Alphab. Tibet. p. 463.

by

by the old *Latin* interpreter, *Fithom* by HIERONYMUS, and *Pethom* in the *Coptick* tranſlation. The *Greek* name of that city was *Heroöpolis*, or, according to STRABO, *Heroön*; but we are informed by STEPHANUS of *Byzantium* *, that, "when TYPHON was ſmitten by lightning, and blood (αἷμα) flowed from his wounds, the "place where he fell was thence called *Hœmus*, though it had likewiſe the name "of *Hero*:" ſo the ſtation of the RA'HU was on the ſpot where PI'T'HE'NA'S and SINGHICA' found his bloody head rolling on the ſands; and, if *Singhicá*, or the *Woman like a Lioneſs*, be the *Sphinx*, the monſtrous *head*, which the *Arabs* call *Abu'lhaul*, or *Father of Terror*, may have been intended for that of RA'HU, and not, as it is commonly believed, for his mother. Though the people of *Egypt* abhorred TYPHON, yet fear made them worſhip him; and in early times they offered him human victims: the *Greeks* ſay, that he had a *red* complexion, and mention his expulſion from *Egypt*, but add a ſtrange ſtory of his arrival in *Paleſtine*, and of his three ſons. We muſt not, however, confound RA'HU with MAHA'DE'VA', who, in his deſtructive character was called alſo TYPHON; though it be difficult ſometimes to diſtinguiſh them: ſeveral places in *Egypt* were dedicated to a divinity named TYPHON; as the *Typhaonian* places between *Tentyra* and *Coptos*; and the tower of *Melite*, where daily ſacrifices were made to a *dragon* ſo terrible, that no mortal durſt look on him; the legends of the temple relating, that a man, who had once the temerity to enter the receſſes of it, was ſo terrified by the ſight of the monſter, that he ſoon expired †. *Melite*, I preſume, was in that part of the *Delta*, which had been peopled by a colony from *Miletus*; and was, probably, the *Mileſian* wall or fort near the ſea-ſhore, mentioned by STRABO.

The uſurper was ſucceeded by ISHTE'NA'S, the real ſon of PI'T'HE'NA'S, who had alſo a daughter named PAIT'HE'NI'; and her ſtory is related thus in the *Brahmánda-purán*. From her earlieſt youth ſhe was diſtinguiſhed for piety, eſpecially towards MAHA'DE'VA, on whom her heart was ever intent; and, at the great feſtival, when all the nation reſorted to *Cardamaſt'halì*, or *Thebes*, the princeſs never failed to ſing and dance before the image of CARADAME'SWARA: the goddeſs ISWARI' was ſo pleaſed with her behaviour, that ſhe made PAITHE'NI' her *Sac'hì*, or female companion; and the damſel uſed to dance thrice a day in the *mud* before the gate of the temple, but with ſuch lightneſs and addreſs as never to ſoil her mantle. She died a virgin, having devoted her life to the ſervice of the god and his conſort.

* Under the word Ἥρω.

† *Ælian* on Animals, B. 11. c. 17.

The

The female patronymick PAIT'HE'NI comes from PIT'H' or PIT'HE'NA, but from PIT'HE'NA's the derivative form would be PAITHE'NASI'; and thence NONNUS calls her PEITHIANASSA, and deſcribes her as a handmaid of SEMELE, the daughter of CADMUS, in which character ſhe received JUNO *, who was deviſing the ruin of SEMELE, and with that intent had aſſumed the form of a loquacious nurſe: this paſſage in the *Dionyſiacks* is very intereſting, as it proves, in my opinion, that the SEMELE and CADMUS of the *Greeks*, were the ſame with the SYA'MALA' and CARDAMA of the *Hindus*.

The *fourteenth* prince of this dynaſty was devoted from his infancy to the worſhip of I'SWARA, on whom his mind was perpetually fixed, ſo that he became inſenſible of all worldly affections, and indifferent both to the praiſe and cenſure of men: he uſed, therefore, to wander over the country, ſometimes dwelling on hills and in woods, ſometimes in a bower, rarely in a houſe, and appearing like an idiot in the eyes of the vulgar, who, in ridicule of his idle talk and behaviour, called him, *Pét'hì-ſuca*, *Panjara-ſuca*, or *Sálá ſuca*, meaning the *parrot* in a *cheſt*, a *cage*, or a *houſe*, which names he always retained. When he grew up, and ſat on the throne, he governed his people equitably and wiſely, reſtraining the vicious by his juſt ſeverity, and inſtructing the ignorant in morals and religion: by his wife MA'RISHA' he had a ſon called ME'D'HI-SUCA, to whom at length he reſigned his kingdom, and, by the favour of ISWARA, became *jívanmucta*, or *releaſed*, even *during life*, from all encumbrances of matters; but the ſtory of MA'RISHA' and his ſon has been related in a preceding ſection. *Mé'd'hi*, or *Mér'hi*, means a pillar, or *a poſt to which victims are tied*, or any ſtraight pole perpendicularly fixed in the ground; and *Pattyam*, I believe, ſignifies a croſs ſtick, or a wooden bar placed horizontally; ſo that *Pattyam-ſuca* might have meant the *parrot on a perch*; but why the *thirteenth* prince had that appellation, I am not yet informed: SUCA is alſo a proper name; the ſon of VYA'SA, and principal ſpeaker in the *Bhágavat*, being called SUCA-DE'VA. Now many *obeliſks* in *Egypt* were ſaid to have been raiſed by a king named SUCHIS †; and the famous labyrinth, to have been conſtructed by King PETESUCCUS ‡: by *Mérhi* we may certainly underſtand either a pillar or an obeliſk, or a ſlender and lofty tower like the *Menárahs* of the *Muſelmans*, or even a high building in a pyramidal form. The *Hindus* aſſert, that each of the three SUCAS had a particular edifice aſcribed to him; and we can hardly

* Dionyſiac. B. 8. v. 193. † Plin. L. 36. c. 8. ‡ Plin. L. 36. c. 13.

doubt,

doubt, that the *ſt'hán* of PE'THI-SUCA was the labyrinth: if the three names of that prince have any alluſion to the building, we may apply *Sálá*, or manſion, to the whole of it; *Panjara*, or cage, to the lower ſtory, and *Pét'hi*, or cheſt, to the various apartments under ground, where the cheſts, or *coffins*, of the ſacred crocodiles, called *Sukhus* or *Sukhis* in old *Egyptian* *, and *Soukh* to this day in *Coptick*, were carefully depoſited. HESYCHIUS, indeed, ſays, that *Buti* ſignified a cheſt, or coffin, in *Egyptian*; but that, perhaps, muſt be underſtood of the vulgar dialect: the modern *Copts* call a cheſt *be-ut*, or, with their article, *tabút*; a word which the *Arabs* have borrowed. When PLINY informs us, that PETESUCCUS was named alſo TITHOES, we muſt either read PITHOES from PE'T'HI, or impute the change of the initial letter to the defective articulation of the *Ethiopians*, who frequently invaded *Egypt*. From the account given by HERODOTUS, we may conjecture, that the coffins of the *ſacred crocodiles*, as they were called, contained in fact the bodies of thoſe princes, whom both *Egyptians* and *Hindus* named *Sucas*, though *ſuc* means a parrot in *Sanſcrit*, and a crocodile in the *Coptick* dialect: the *Sanſcrit* words for a crocodile are *Cumbhíra* and *Nacra*, to which ſome expoſitors of the *Amarcóſh* and *Avagraha* and *Gráha*; but, if the royal name was ſymbolical, and implied a peculiar ability to *ſeize* and *hold*, the ſymbol might be taken from a bird of prey, as well as from the lizard kind; eſpecially as a ſect of *Egyptians* abhorred the crocodile, and would not have applied it as an emblem of any legal and reſpectable power, which they would rather have expreſſed by a hawk, or ſome diſtinguiſhed bird of that order: others, indeed, worſhipped crocodiles, and I am told, that the very legend before us, framed according to their notions, may be found in ſome of the *Puránas*.

We find then three kings named SUCAS, or *parrots*, living in a *houſe* or a *cage*, or reſting either on an *upright pole*, or on one with a *croſs-bar*, but who they were, it is not my preſent object, nor am I now able, to inveſtigate: I will only obſerve, that beſides the king of *Egypt*, whom PLINY calls SUCHIS, or SOCHIS, the father of the *Curetes*, is named SOCHUS by a *Greek* lexicographer, and SOCUS by the author of the *Dionyſiacks*; and that he was one of the *Cabires* or *Cuvéras*, who (or at leaſt ſome of whom) inhabited in former ages the countries adjacent to the *Nile*.

The ruins of that wonderful building, called the Labyrinth, are ſtill to be ſeen near the lake *Moeris*, at a place which the *Arabs* have named the *Kaſr*, or palace, of KARUN, whom they ſuppoſe to have been the richeſt of mortals; as the ruins

* STRABO, B. 17. p. 811. DAMASCIUS, Life of ISIDORUS.

of

of ME'DHI-SU'CA-*ſt'hán* are in a diſtrict, named the *Belád*, or country, of the ſame perſonage: the place laſt mentioned is, moſt probably, the labyrinth built, according to DAMOTELES in PLINY, by MOTHERUDES, a name derived, I imagine, from MEDHI-RUSHI. The town of *Meta-camſo*, mentioned by PTOLEMY as oppoſite to *Pſelchis* above *Syene*, ſeems to have had ſome connection with *Medhi-ſuca*; for *camſa* and *ſuca* were ſynonimous in the old *Egyptian:* HERODOTUS at leaſt informs us, that *camſa* meant a crocodile in that language; and it appears related to *timſáh* in *Arabick*. *Patyam* (for ſo the long compound is often abbreviated), ſeems to have been the labyrinth near *Arſinoe*, or *Crocodilopolis*, now *Fayum*, which word I ſuppoſe corrupted from *Patyam*, or *Phatyam*, as the *Copts* would have pronounced it; and my *Pandit* inclines alſo to think, that the building might have been thus denominated from large pieces of ſtone or timber projecting, like *patyas*, before the windows, in order to ſupport the frames of a balcony, which, as a new invention, muſt have attracted the notice of beholders. As to the lake of *Mœris*, I have already exhibited all that I have yet found concerning it: the ſtupendous pyramid, ſaid to have been ſix hundred feet high, in the midſt of that lake, was raiſed, we are told, by a king named MÆRIS, MYRIS, MARROS, MAINDES, MENDES, and IMANDES*; a ſtrong inſtance of one name variouſly corrupted; and I have no doubt, that the original of all thoſe variations was MERHI or MEDHI. Even to this day in *India*, the pillars or obeliſks, often raiſed in the middle of tanks, or pools, are called *Mérkis*; but let us proceed to another legend faithfully extracted from the *Mahá-calpa*, in which we ſee, beyond a doubt, the affinity of *Indian*, *Egyptian*, and *Grecian* Mythology.

II. On the mountains of *Jwálámuc'ha*, in the interior *Cuſha-dwíp*, reigned a virtuous and religious prince, named C'HARVANA'YANA'S, whoſe ſon, CAPE'YANA'S, preferred arms and hunting, in which he was continually engaged, to the ſtudy of the *Véda*, and was ſo frequently concerned in conteſts and affrays with his neighbours, that his father, after many vain admonitions, baniſhed him from his palace and his kingdom: the dauntleſs young exile retired to the deſerts, and at length reached *Mócſhéſa*, believed to be *Mecca*, where, hungry and fatigued, he bathed in the *Mócſha-tírt'ha*, or conſecrated well, and paſſed the night without ſleep. VISVACSE'NA, then ſovereign of that country, had an only daughter PADMAMUC'HI', or with *a face like a lotos*, who went to perform religious rites to MAHA'DE'VA, god

* STRABO, B. 17. p. 811. Diod. Sic. B. 1. p. 55.

of

of the temple and the well; and there ſeeing the prince, ſhe brought him refreſhment, and heard his adventures; their interview ended in mutual love, and the old king, who denied her nothing, conſented to their marriage, which was ſolemnized with the ceremony of *Pánigraha*, or *taking hands*; and the young pair lived many years happily in the palace of their father. It happened ſome time after, that the city was beſieged by two kings of the *Dánavás* with a numerous army; but CAPE'YANA'S entirely defeated them: the venerable monarch met his brave ſon-in-law returning with conqueſt, and, having reſigned the throne to him, went to the banks of the *Cálì*, accompanied by his wife, and entered with her into the *third* order, called *Vánapreſt'ha*, or that of *hermits*, in which they paſſed the remainder of their lives, and, after death, obtained *laya*, or *union with the Supreme Spirit*; whence their ſtation was named *Layaſt'hán*, or *Layavatì*, and was viſited, for ages after, by ſuch as hoped for beatitude. CAPE'YANAS, or CAPE'NAS (for he is differently named in the ſame book), adhered ſo ſtrictly to juſtice, and governed ſo mildly, that he was reſpected by his neighbours and beloved by his ſubjects: yet he became a great conqueror, always protecting the weak, and puniſhing their oppreſſors. All the princes to the eaſt of *Mócſhéſa* paid him tribute; but CA'LASE'NA, king of the exterior *Cuſha-dwíp*, having inſolently refuſed to become his tributary, he invaded *Abyſſinia*, and, after a very long battle, at a place named *Ranótſava*, or the *feſtival of combat*, wholly defeated CA'LASE'NA, whom he replaced on his throne, exacting only a regular acknowledgment of his dominion paramount: then, following the courſe of the *Cál.* river, he came to *Barbara*, or the burning ſands of *Nubia*, the king of which country was GULMA, one of the *Tamóvanſas*, or the ſon of MA'NDYA, who was the ſon of TAMAS, or SANI, by his wife JARAT'HA'; but from GULMA he met with no reſiſtance, for the wiſe king laid his diadem at the feet of CAPE'NAS, who reſtored it, and deſired his company, as a friend, in his expedition to *Miſra-ſt'hán*. The ſovereign of *Miſra* was at that time RANASU'RA, who, diſdaining ſubmiſſion, ſent his ſon RANADURMADA with a great force againſt CAPE'NAS, and ſoon followed him at the head of a more powerful army: an obſtinate battle was fought, at a place called afterwards *Ghóra-ſt'hán*, from the horror of the carnage; but RANASU'RA was killed, and his troops entirely routed. The conqueror placed the prince on the throne of *Miſra*, the capital of which was then called *Viſva-cirti-pura*, or the City of *Univerſal Fame*: and, having carried immenſe treaſures to *Mécſhéſa*, he dedicated them to the God of the temple, reſolving to end his days in peaceful devotion: by PADMAMUC'HI' he had a daughter named

named ANTARMADA', and a ſon BHA'LE'YANA'S, to whom, after the example of ancient monarchs, he reſigned his kingdom when he grew old, and prepared himſelf for a better life.

Before his death he was very deſirous of performing the great *ſacrifice of a horſe*, called *Aſwamédha*, but conſiderable difficulties uſually attended that ceremony; for the conſecrated horſe was to be ſet at liberty for a certain time, and followed at a diſtance by the owner, or his champion, who was uſually one of his near kinſmen; and, if any perſon ſhould attempt to ſtop it in its rambles, a battle muſt inevitably enſue: beſides, as the performer of a hundred *Aſwamédhas* became equal to the God of the firmament, INDRIA was perpetually on the watch, and generally carried off the ſacred animal by force or by fraud; though he could not prevent BELI from completing his hundredth ſacrifice; and that monarch put the ſupremacy of the *Dévas* to proof, at the time, when the *Padmá-mandira* was built on the banks of the *Cumudvatì*; nor did he prevail againſt RAGHU, whoſe combat with INDRA himſelf is deſcribed by CA'LIDA'S in a ſtyle perfectly *Homerick*. The great age of CAPE'NAS obliged him to employ his ſon in that perilous and delicate ſervice; but INDRA contrived to purloin the horſe, and BHA'LE'YANA'S reſolved never to ſee his father or kingdom, unleſs he could recover the myſtical victim: he wandered, therefore, through foreſts and over deſerts, till he came to the bank of the *Ganges* near *Avaca-pura*, or *Alacá-purì*, about twelve *crós* N.N.W. of *Badarí-nát'h*; and there, in the agonies of deſpondence, he threw himſelf on the ground, wiſhing for death; but GANGA', the river goddeſs, appeared to him, commanded him to return home, and aſſured him, that he ſhould have a ſon, whom ſhe would adopt by the name of GA'NGE'YANA'S, who ſhould overcome INDRA, and reſtore the horſe to his grandfather. Her prediction was in due time accompliſhed; and the young hero defeated the army of INDRA in a pitched battle near the river *Cálì*, whence he acquired the title of VIRAUJA-JIT, or vanquiſher of INDRA: the field of *battle* was thence named *Samara-ſt'hán*; and is alſo called *Viráſaya*, becauſe the flower of *heroes* had been there lulled in the *ſleep* of death. BHA'LE'YANA'S, having a very religious turn of mind, placed his ſon on the throne, and, obſerving that his ſiſter ANTARMADA' had the ſame inclinations, retired with her to the foreſt of *Tapas*, in Upper *Egypt*; both intending to cloſe their days in devout auſterities and in meditation on the Supreme Spirit: MA'YA'-DE'VI', or the goddeſs of worldly illuſion, who reſembles the APHRODITE *Pandemos* of the *Greeks*, and totally differs from JNYA'-DE'VI, or the goddeſs of celeſtial wiſdom, attempted to diſturb them, and to prevent them from reaping the fruit

fruit of their piety; but ſhe was unable to prevail over the fervent devotion of the two royal anchorites. Her failure of ſucceſs, however, gave her an unexpected advantage; for ANTARMADA' became too much elated with *internal pride*, which her name implies; and, boaſting of her victory over MAY'A'DE'VI', ſhe added, that the inhabitants of the three worlds would pay her homage, that ſhe ſhould be like ARUNDHATI', the celebrated conſort of VASISHT'HA, and that, after her death, ſhe ſhould have a ſeat in the ſtarry manſion: this vaunt provoked MA'YA'DE'VI' to a phrenſy of rage; and ſhe flew to AURVA, requeſting him to ſet on fire the foreſts of *Tapas*; but VISHNU, in the ſhape of a hollow conical mountain, ſurrounded the princeſs, and ſaved her from the flames; whence the place, where ſhe ſtood, was called the *ſt'hán* of *Ch'háditá*, or the *covered*, and the *Periracſhità*, or the *guarded on all ſides*. The enraged goddeſs then ſent a furious tempeſt; but VISHNU, aſſuming the form of a large tree, ſecured her with its trunk and branches at a place thence named *Racſhitá-ſt'hana*: MA'YA'DE'VI', however, ſeized her, and caſt her into a certain ſea, which had afterwards the name of *Amagna*, becauſe VISHNU endued its waters with a power of ſupporting her on their ſurface; and they have ever ſince retained that property, ſo that *nothing ſinks* in them.

The fourth and laſt machination was the moſt dangerous and malignant: DE'VI' carried ANTARMADA' to the ſea-ſhore, and chained her to a rock, that ſhe might be devoured by a *Gráha*, or ſea-monſter; but VISHNU, ever vigilant to preſerve her, animated a young hero, named PA'RASI'CA, who ſlew the monſter, and releaſed the intended victim, at a place named, from her deliverance, *Uddhára-ſt'hán*. He conducted her to his own country, and married her at a place called *Pánigraha*, becauſe he there *took her by the hand*, in the nuptial ceremony: they paſſed through life happily, and, after death, were both ſeated among the ſtars, together with CAPE'NAS and PADMAMUC'HI', who had alſo the patronymick of CA'SYAPI'. Among the immediate deſcendants of PA'RASICA and ANTARMALA', we find VA'RASICA and RASICA, who reigned ſucceſſively, TIMICA and BHA'LUCA, who travelled, as merchants, into diſtant countries, and BHA'LUCA'YANI, who ſeems to have been the laſt of the race.

The pedigree of CAPE'NAS has been carefully preſerved; and many *Bráhmens* are proud of their deſcent from him:

CAS'YAPA *and* ADITA.

Sándiláyanás,
Cóbaláyanás,
Páyacáyanás,
Daitéyáyanás,
Audamóghayanás
Mútráyanás,
Vacyas'andhayanás,
C'harvagáyanás,
Cáuſhayanás,
Vártáyanás,
Vátſanáyanás,
Maunjáyanás,
Jánavans'áyanás,
Ványa vatſáyanás,
C'harvanáyanás,
CAPE'YANA'S,
Bhálevanás,
Gángéyanás,
Satrugáyanás,
Vailáyanás,
Jánghráyanás,
Cánſayanás.

A twenty-third prince, named CANSALA'YANA'S, is added in ſome genealogical tables.

This is manifeſtly the ſame ſtory with that of CEPHEUS and CASSIOPEA, PERSEUS and ANDROMEDA. The firſt name was written CAPHEUS or CAPHYEUS, by the *Arcadians* *, and is clearly taken from CAPE'YA, the termination *nás* being frequently rejected: ſome aſſert, that he left no male iſſue; and APOLLODORUS only ſays, that he had a daughter, named STEROPE, the ſame, I preſume, with ANDROMEDA. The wife of CAPE'YA was either deſcended herſelf from CASYAPA, or was named CA'SYAPI', after her marriage with a prince of that lineage. PA'RASICA is declared in the *Puránas* to have been ſo called, becauſe he came from *para*, or *beyond*, that is from beyond the river *Cálì*, or from the weſt of it; ſince it appears from the context, that he travelled from weſt to eaſt; the countries on *this ſide* of the *Nile*, with reſpect to *India*, have thence been denominated *Arva-ſt'hán*, or, as the *Perſians* write it, *Arabiſtán*; while thoſe nations who were ſeated on *the other ſide* of it, were called *Párasícáh*, and hence came the *Pharuſii*, or *Perſæ*, of *Lybia*, who are ſaid by PLINY to have been of *Perſian* origin, or deſcended from PERSEUS, the chief ſcene of whoſe achievements was all the country from the weſtern bank of the *Nile* to the ocean; but I do not believe that the word *Párasícáh* has any relation to the *Perſians*, who in *Sanſcrit* are called *Páraſáh*, or inhabitants of *Paraſa*, and ſome-

* Pauſan. Arcad.

times

times *Párasavah*, which may be derived from PARASU, or *Parasváh*, from their *excellent horses*. I must not omit, that *Arva-st'hán*, or *Arabia*, is by some derived from *Arvan*, which signifies *a fine horse*, the final letter being omitted in composition: ARVAN is also the name of an ancient sage, believed to be a son of BRAHMA'.

In order to prove, by every species of evidence, the identity of the *Grecian* and *Indian* fables, I one night requested my *Pandit*, who is a learned astronomer, to shew me among the stars the constellation of *Antarmadá*; and he instantly pointed to *Andromeda*, which I had taken care not to show him first as an asterism, with which I was acquainted: he afterwards brought me a very rare, and wonderfully curious, book in *Sanscrit*, with a distinct chapter on the *Upanacshatras*, or constellations out of the Zodiack, and with delineations of CAPE'YA, or CA'SYAPI' seated, with a lotos-flower in her hand, of ANTARMADA', chained with the fish near her, and of PA'RASI'CA holding *the head of a monster, which he had slain in battle, dropping blood, with snakes instead of hair*, according to the explanation given in the book: but let us return to the geography of the *Puránas*.

We mentioned, in the first section, the two *Jwálámuc'his*, near one of which the father of CAPE'YANA'S resided: the *Jwálámuc'hi*, now *Corcùr*, which was also named *Anáyúsá-dévi-st'hán*, was at no great distance from the *Tigris*, and seems, as we intimated before, to be the τῆς Ἀναίας Ἱερὸν of STRABO *. I suppose it to be the original *Ur* of the *Chaldeans*; original, I say, because there were several places of that name, both in *Syria* and *Chaldea*, where superstitious honours were paid to fire, either natural or artificial. The epithet *great* is applied in some *Puránas* to this *Jwálámuc'hi*, and in others to that near *Baku*; to this, perhaps, by way of eminence in sanctity, and to that, because its flames were more extended and fiercer. *Laya-st'hán*, or *Layavati*, where VISVACSE'NA closed his days near the *Cálì*, we have also mentioned in a preceding section; and it was, probably, the *Lete* of JOSEPHUS †, or some place very near it; STEPHANUS of *Byzantium* calls it *Letapolis*, or *Latopolis*, and says, that it was a suburb of *Memphis* near the pyramids ‡. *Ghóra-st'hán* is yet unknown: it could not have been very far from *Viswa-círti-pura*; but *universal fame* is applicable to so many cities of *Egypt*, that we cannot appropriate it to any one of them. Of *Tapas* and *Tapovana*, we have already spoken: and *Ch'háditá*, or *Periracshitá*, must have been in those forests of *Thebais*: the tree of *Racshitá* was,

* B. 17. p 738. † B. 2. ‡ B. 17.

possibly,

poſſibly, the holy Sycamore mentioned by PLINY, fifty-four miles above *Syene*, on the banks of the *Nile* *. The ſea of *Amagna* was, moſt probably, the *Aſphaltite* lake, the waters of which had, and ſome aſſert, to have this day, ſo buoyant a quality, that nothing could ſink in them: MAUNDREL takes particular notice of this wonderful property. That lake was not far from *Uddhára-ſt'hán*, or *Joppe*, where ANDROMEDA was chained to a rock: PLINY ſays, that the place of her confinement and deliverance was ſhown there in his time †; and the *Sanſcrit* word *Yapmá*, which the *Arabs* pronounce *Yáfah*, and the *Europeans* call *Joppa*, means *deliverance from imminent danger*. On the *Egyptian* ſhore, oppoſite to *Joppa*, was a place called the *Watch-tower* of PERSEUS: by *Gráha*, a crocodile or a ſhark, we may underſtand alſo one of RA'HU's deſcendants, among whom the females were the *Graiai*, or *Græœ*, of the weſtern mythologiſts. *Pánigraha* was, I ſuppoſe, the town of *Panopolis*, which could have no relation to the God PAN; for HERODOTUS, who had been there, informs us, that it was called both *Panopolis* and *Chemmis*, that the inhabitants of it paid divine honours to PERSEUS, and boaſted that he was born in it; but had PAN, of whom that hiſtorian frequently ſpeaks, been the tutelary god of the town, he would certainly have mentioned that fact: in the acts of the council of *Epheſus*, we find that SABINUS was *Panis Epiſcopus*, as if one named of the town had been *Pani* or *Panis*; and it might have been anciently named *Pánigrĭha*, the *manſion* or *place* of the *hand*, that is of *wedlock*, which the *Greeks* would of courſe tranſlate *Panopolis*; as we find *Rája-grĭha* rendered *Rája-mahall* in the ſame ſenſe. On the banks of the *Niger* was another town of that name, called *Panagra* by PTOLEMY; and, to the north of it, we ſee *Timica*, *Ruſikibar*, *Ruſuccurum*, and *Ruſicade*, which have a great affinity with TIMICA and RASICA, before mentioned as deſcended from PERSEUS: both *Raſicbár* and *Raſic-gher* are *Indian* appellations of places; the firſt meaning the *encloſed ground*, or *orchard*; and the ſecond (which is a corruption from the *Sanſcrit*), the *houſe* of *Raſica*. Great confuſion has ariſen in the geography of *India*, from the reſemblance in ſound of *gher*, a houſe *gerh*, a fortreſs, and the ſecond ſyllable of *nagar*, a town; thus *Criſhna-nagar* is pronounced *Kiſhnagher*, and *Ram-nagar*, *Ramna-gher*, both very erroneouſly; ſo *Biſnagar* was probably *Viſhnu-nagar*, or *Viſva-nagar*: we muſt beware of this, and the like, confuſion, when we examine the many names of places in *Lybia* and other parts of *Africa*, which are either pure *Sanſcrit*, or in ſuch of the dialects as are ſpoken in the weſt of *India*.

* Plin. L. 6. c. 29. † L. 5. c. 13, and 31. See alſo *Joſephus*, *Strabo*, *Mela*.

Let

Let us conclude this article with obſerving, that the great extent of CAPE'YA's empire appears from the *Greek* mythologiſts and other ancient writers; for the moſt conſiderable part of *Africa* was called *Cephenia* from his full name CAPE'YANAS; the *Perſians* from him were ſtyled *Cephenes*; and a diſtrict in the ſouth of *Armenia* was denominated *Cephene*; a paſſage alſo in PLINY ſhows, that his dominion included *Ethiopia*, *Syria*, and the intermediate countries: "*Ethiopia*, ſays he, was worn out "by the wars of the *Egyptians*, alternately ruling and ſerving; it was famed, how- "ever, and powerful even to the *Trojan* wars in the reign of MEMNON; and that, "in the time of King CEPHEUS, it had command over *Syria*, and on our coaſt, is "evident from the fables of ANDROMEDA."

III. The following legend is taken from the *Mahácalpa*, and is there ſaid expreſsly to be an *Egyptian* ſtory. An ancient king, who was named CHATURA'YANA, becauſe he was a perfect maſter of the *four Védas*, to which name VATSA was uſually prefixed, becauſe he was deſcended from VATSA, a celebrated ſage, paſſed a hundred years in a dark cavern of *Criſhna-giri*, or the Black Mountain, on the banks of the *Cálì*, performing the moſt rigorous acts of devotion: at length VISHNU, ſurnamed GUHA'SAYA, or dwelling in caves, appeared to him, and promiſed him, all that he deſired, *male iſſue*; adding, that his ſon ſhould be named TAMO'VATSA, in alluſion to the *darkneſs*, in which his father had ſo long practiſed religious auſterities. TAMO'VATSA became a warlike and ambitious, but wiſe and devout, prince: he performed auſtere acts of humiliation to VISHNU, with a deſire of enlarging his empire: and the God granted his boon. Having heard, that *Miſra-ſt'hán* was governed by NIRMARYA'DA (a name, which may poſſibly be the origin of NIMROD), who was powerful and unjuſt, he went with his choſen troops into that country, and, without a declaration of war, began to adminiſter juſtice among the people, and to give them a ſpecimen of a good king: he even treated with diſdain an expoſtulatory meſſage from NIRMARYA'DA, who marched againſt him with a formidable army, but was killed in a battle, which laſted twelve days, and in which TAMO'VATSA fought like a ſecond PARASU RA'MA. The conqueror placed himſelf on the throne of *Miſra*, and governed the kingdom with perfect equity: his ſon BA'HYAVATSA devoted himſelf to religion, and dwelt in a foreſt; having reſigned his dominion to his ſon RUCMAVATSA, who tenderly loved his people, and ſo highly improved his country, that from his juſt revenues he amaſſed an incredible treaſure. His wealth was ſo great, that he raiſed *three mountains*, called *Rucmádri*, *Rajatádri*, and *Retnádri*, or the mountain of *gold*, of *ſilver*, and of *gems*: the author

author ſays *mountains:* but it appears from the context that they were fabricks, like mountains, and probably in a pyramidal form.

TAMO'VATSA ſeems to be the TIMAUS of MANETHO, who ſays, according to Mr. BRYANT's tranſlation, that "they once had a king, called TIMAUS, in whoſe "reign there came on a ſudden into their country, a large body of obſcure people, "who with great boldneſs invaded the land, took it without oppoſition, and be-"haved very barbarouſly, ſlaying the men, and enſlaving their wives and children." The *Hindus*, indeed, ſay, that the invaders were headed by TAMO'VATSA, who behaved with juſtice to the natives, but almoſt wholly deſtroyed the king's army, as the ſon of JAMADAGNI nearly extirpated the *military* claſs; but the fragments of MANETHO, although they contain curious matter, are not free from the ſuſpicion of errors and tranſpoſitions. The ſeat of TAMO'VATSA, called *Tamóvatſa-ſt'hán*, ſeems to be the town of *Thmuis*, now *Tmaiè*, in the diſtrict of *Thmuites:* in later times it appears to have communicated its name to the *Phatmetick* branch, and thence to *Tamiathis*, the preſent *Damiata*. We before aſcertained the ſituation of *Criſhna-giri*; and, as to the three ſtupendous edifices, called *mountains*, from their ſize and form, there can be little or no doubt, that they were the three great Pyramids near *Miſra-ſt'hán*, or *Memphis*; which, according to the *Puránas* and to PLINY, were built from a motive of oſtentation, but, according to ARISTOTLE, were *monuments of tyranny*. RUCMAVATSA was no tyrant to his own people, whom *he cheriſhed*, ſays the *Mahácalpa*, as if they had been *his own children*; but he might have compelled the native *Egyptians* to work, for the ſake of keeping them employed, and ſubduing their ſpirit. It is no wonder that authors differ as to the founders of thoſe vaſt buildings; for the people of *Egypt*, ſays HERODOTUS, held their memory in ſuch deteſtation, that they would not even pronounce their names; they told him, however, that they were built by a herdſman, whom he calls PHILITIUS, and who was a leader of the *Pális* or *Bhils* mentioned in our firſt ſection. The paramids might have been called mountains of *gold*, *ſilver*, and *precious ſtones*, in the hyperbolical ſtyle of the Eaſt; but I rather ſuppoſe, that the firſt was ſaid to be of *gold*, becauſe it was coated with yellow marble; the ſecond of *ſilver*, becauſe it had a coating of white marble; and the third of *jewels*, becauſe it excelled the others in magnificence, being coated with a beautiful ſpotted marble of a fine grain; and ſuſceptible of an exquiſite poliſh *. The *Bráhmens* never underſtood, that any pyra-

* Savary, V. I. p. 246.

mid

mid in *Miſra-ſt'hala*, or *Egypt*, was intended as a repoſitory for the dead; and no ſuch idea is conveyed by the *Mahácalpa*, where ſeveral other pyramids are expreſsly mentioned as places of worſhip. There are pyramids now at *Benáres*, but on a ſmall ſcale, with ſubterranean paſſages under them, which are ſaid to extend many miles; when the doors, which cloſe them are opened, we perceive only dark holes, which do not ſeem of great extent, and pilgrims do no longer reſort to them, through fear of mephitick air, or of noxious reptiles. The narrow paſſage, leading to the great pyramid in *Egypt*, was deſigned to render the holy apartment leſs acceſſible, and to inſpire the votaries with more awe: the caves of the oracle at *Delphi*, of TROPHONIUS, and of *New-Grange* in *Ireland*, had narrow paſſages anſwering the purpoſe of thoſe in *Egypt* and *India*; nor is it unreaſonable to ſuppoſe, that the fabulous relations concerning the grot of the *Sibyl* in *Italy*, and the purgatory of St. PATRICK, were derived from a ſimilar practice and motive, which ſeem to have prevailed over the whole pagan world, and are often alluded to in Scripture. M. MAILLET has endeavoured to ſhow, in a moſt elaborate work, that the founders of the great pyramid lay entombed in it, and that its entrance was afterwards cloſed; but it appears, that the builder of it was not buried there; and it was certainly opened in the times of HERODOTUS and PLINY. On my deſcribing the great *Egyptian* pyramid to ſeveral very learned *Bráhmens*, they declared it at once to have been a temple; and one of them aſked, if it had not a communication under ground with the river *Cáli*: when I anſwered, that ſuch a paſſage was mentioned as having exiſted, and that a well was at this day to be ſeen, they unanimouſly agreed, that it was a place appropriated to the worſhip of PADMA'-DE'VI, and that the ſuppoſed tomb was a trough, which, on certain feſtivals, her prieſts uſed to fill with the ſacred water and lotos-flowers. What PLINY ſays of the Labyrinth is applicable alſo to the Pyramid: ſome inſiſted, that it was the palace of a certain king; ſome, that it had been the tomb of MŒRIS; and others, that it was built for the purpoſe of holy rites; a diverſity of opinion among the *Greeks*, which ſhows how little we can rely on them; and in truth, their pride made them in general very careleſs and ſuperficial inquirers into the antiquities and literature of other nations.

IV. A ſingular ſtory, told in the *Uttara-charitra*, ſeems connected with the people, whom, from their principal city, we call *Romans*. It is related, that a ſage, named A'LAVA'LA reſided on the verge of *Himádri*, and ſpent his time in cultivating orchards and gardens; his name or title implying a *ſmall canal* or *trench*, uſually dug round trees, for the purpoſe of watering them. He had an only ſon, whoſe

name,

name, in the patronymick form, was A'LAVA'LI: the young *Bráhmen* was beautiful as CA'MADE'VA, but of an amorous and roving diſpoſition; and, having left the houſe of his father, in company with ſome youths like himſelf, he travelled as far as the city of *Rómacà*, which is deſcribed as agreeably ſituated, and almoſt impregnably ſtrong. The country, in which it ſtood, was inhabited by *Mléch'has*, or men who ſpeak a barbarous dialect, and their king had a lovely daughter, who happening to meet A'LAVA'LI, found means to diſcourſe with him: the young pair were ſoon mutually enamoured, and they had frequent interviews in a ſecret grove or garden; till the princeſs became pregnant, and, her damſels having betrayed her to the king, he gave orders for the immediate execution of A'LAVA'LI: but ſhe had ſufficient power to effect his eſcape from the kingdom. He returned home; but, his comrades having long deſerted him, and informed his father of his intercourſe with the daughter of a *Mléch'ha*, the irritated ſage refuſed to admit him into his manſion: he wandered, therefore, from country to country, till he arrived in *Barbara*, where he ſuffered extreme pain from the burning ſands; and having reached the banks of the *Crĭſhnà*, he performed a rigorous penance for many years, during which he barely ſupported life with water and dry leaves. At length MAHA'DE'VA appeared to him, aſſured him that his offence was forgiven, and gave him leave, on his humble requeſt, to fix his abode on the banks of the holy river *Cálì*, reſtoring him to his loſt ſacerdotal claſs, and promiſing an increaſe of virtue and divine irradiation. From the character in which the God revealed himſelf, he was afterwards named AGHAHE'SA, or *Lord of him who forſakes ſin*; and the ſtation of A'LAVA'LI was called *Aghahéſa-ſt'hán*, or *Aghahéſam*.

Now we find the outline of a ſimilar tale in the ancient *Roman* hiſtory; and one would think that the *Hindu* writers wiſhed to ſupply what was deficient in it. The old deities of *Rome* were chiefly rural, ſuch as the *Fauns*, the *Sylvans*, and others who preſided over *orchards* and *gardens*, like the ſage A'LAVA'LA: the *Sanſcrit* word *ála*, which is lengthened to *álaválà*, when the trench is carried quite round the tree, ſeems to be the root of ἀλωὰ, a vineyard or an orchard, ἀλωὴ in the ſame ſenſe, ἄλεα gardens, and ἀλωεὺς, a gardener or huſbandman. We read of VERTUMNA with child by APOLLO, the daughter of FAUNUS by HERCULES, and thoſe of NUMITOR and TARCHETIUS, by ſome unknown Gods, or at leaſt in a ſupernatural manner; which may be the ſame ſtory differently told: the king of the *Mléch'has* would, no doubt, have ſaved the honour of his family, by pretending that his daughter had received the careſſes of a rural divinity.

The

The origin of *Rome* is very uncertain; but it appears to have been at firſt a place of worſhip raiſed by the *Pelaſgi*, under the command of a leader, who, like many others, was named HERCULES: by erecting other edifices round it, they made it the capital of their new weſtern ſettlements; and it became ſo ſtrong a city, that the *Greeks* called it *Rhomè*, or *power itſelf*: but *Rómacà*, which all the *Hindus* place very far in the weſt, was thus denominated, according to them, from *Róma*, or wool, becauſe its inhabitants wore mantles of *woollen cloth*; as the *Greeks* gave the epithet of λινοχλαίνης, from linen veſture, to the people of *Egypt* and to thoſe eaſtern nations with whom they were acquainted. PLINY ſays, that the primitive name of *Rome* was ſtudiouſly concealed by the *Romans* *; but AUGUSTINE informs us, that it was *Febris*: probably that word ſhould be written *Phoberis*. About two generations before the *Trojan* war, the *Pelaſgi* began to loſe their influence in the weſt, and *Rome* gradually dwindled into a place of little or no conſequence; but the old temple remained in it; according to the rules of grammatical derivation, it is more probable that ROMULUS was thus named, becauſe he was found, when an infant, near the ſite of old *Rome*, than that new *Rome*, which he rebuilt and reſtored to power, ſhould have been ſo called from ROMULUS. A certain ROMANUS, believed to be a ſon of ULYSSES, is by ſome ſuppoſed to have built *Rome*, with as little reaſon as ROMULUS; if, indeed, they were not the ſame perſonage: ROMANUS, perhaps, was the King LATINUS, whom HESIOD mentions as *very powerful*; but, whether he was the foreign prince, whoſe daughter inſpired A'LAVA'LI with love, I cannot pretend to decide: however, theſe inquiries relate to the *dwíp* of *Varáha*; and the ſcope of our work leads us back to that of CUSHA.

It is reaſonable to believe, that *Aghahéſam* was the celebrated and ancient city of *Axum*, in the vicinity of the little *Criſhná*, or the *Aſtaboras* of our old geographers, now called *Tacazzè*; which, according to Mr. BRUCE, is the largeſt river in *Abyſſinia*, next to the *Abay* or *Nile* †: it is alſo held *ſacred*, and the natives call it *Tenuſh Abay*, or Little *Nile*, a very ancient appellation; for STRABO gives the name of *Teneſis* to the country bordering on that river ‡. Hence, perhaps, the ancients miſtook this river for the *Nile*, to which they erroneouſly applied the name *Siris*; for the true *Siris* appears to be the Little *Criſhná*. The *Agows*, who live towards the heads of the *Nile* and the *Tacazzè*, may have derived their name from *Aghaha*; and we find the race of A'LAVA'LI ſettled as well in the iſles of the Red Sea, near the

* L. 3. c. 5. † Vol. 3. p. 157. 612. ‡ B. 16. p. 770.

Abyſſinian coaſt, as in the country adjacent to *Aghabéſam:* thoſe iſles were called *Alieu* and *Alaleæ:* and, in the diſtricts about the *Tacazzè*, were the *Elei* or *Eleii*, ſurnamed *Rhizophagi*, who dwelt on the banks of the *Aſtapas*, and the *Aſtaboras*; in which denominations of iſlands and tribes we may trace the radical word *A'la* or *A'lavála.*

The ſmaller *Crĭſhnà* was ſo denominated, either becauſe its waters were *black*, or becauſe it had its origin from an achievement of CRISHNA'; and its name *Aſt'himatì*, was given on an occaſion which has been already mentioned, but which may here be related at large from the *Bráhmánda*. When CRISHNA viſited *Sanc'ha-dwíp*, and had deſtroyed the demon, who infeſted that delightful country, he paſſed along the bank of a river, and was charmed with a delicious odour, which its waters diffuſed in their courſe: he was eager to view the ſource of ſo fragrant a ſtream, but was informed by the natives, that it flowed from the temples of an elephant, immenſely large, milk white, and beautifully formed, that he governed a numerous race of elephants, and that the odoriferous fluid, which exuded from his temples in the ſeaſon of love, had formed the river, which, from his name, was called *Sanc'hanágà*; that the *Dévas*, or inferior gods, and the *Apſaraſes*, or nymphs, bathed and ſported in its waters, impaſſioned and intoxicated with the liquid perfume. The *Hindu* poets frequently allude to the fragrant juice which oozes, at certain ſeaſons, from ſmall ducts in the temples of the male elephant, and is uſeful in relieving him from the redundant moiſture with which he is then oppreſſed; and they even deſcribe the bees as allured by the ſcent, and miſtaking it for that of the ſweeteſt flowers; but though ARRIAN mentions this curious fact, no modern naturaliſt, I believe, has taken notice of it. CRISHNA was more deſirous than before of ſeeing ſo wonderful a phenomenon, and formed a deſign of poſſeſſing the elephant himſelf; but SANC'HANA'GA led againſt him a vaſt army of elephants, and attacked him with ſuch fury, that the incarnate God ſpent ſeven days in ſubduing the aſſailants, and ſeven more in attempting to ſeize their leader, whom at laſt he was obliged to kill with a ſtroke of his *Chacra:* the head of the huge beaſt had no ſooner fallen on the ground, where it lay like a mountain, than a beautiful *Yacſha*, or Genius, ſprang from the body, who proſtrated himſelf before CRISHNA, informing him, that he was VIJAYAVERDHANA, who had once offended MAHA'DE'VA, and been condemned by him to paſs through a mortal form, that he was ſupremely bleſſed in owing his deliverance to ſo mighty a God, and would inſtantly, with his permiſſion, return to his appeaſed maſter. The victor aſſented, and left the field of battle; where, from the *bones* of the

the ſlain elephants, roſe a lake, thence named *Aſt'hitarága*, from which flowed the river *Aſt'himatì*, whoſe hallowed waters, adds the author of the *Puránа*, remove ſin and worldly affections: *aſt'hi*, a *bone*, pronounced *oſt'hi* in ſome provinces, is clearly the *Greek* ὀστέον, and its derivative *aſt'himat* becomes *aſt'himán*, in the firſt caſe maſculine; whence the river is by ſome old geographers called *Aiſtamenos*; for the names of rivers, which are feminine for the moſt part in *Sanſcrit*, are generally maſculine in the weſtern languages. We find it named alſo *Aſtaboras* and *Aſtabaras*; for *Aſt'hivara* means the *moſt excellent bone*, or ivory; and the *Adiabaræ*, who lived, ſays PLINY, on its banks, took their name, perhaps, from the river, the word *aſt'hi* being pronounced *áti* and *ádi* in ſome vulgar dialects; as the *Sanſcrit* word *haſti*, an elephant, is corrupted into *háti*; *Mareb*, or *Sanc'hánágà*, was anciently named *Aſtoſabas*, or *Aſtuſobas*, poſſibly from *Haſtiſrava*, or *flowing from an elephant*, in alluſion to the legend before related; and one would have thought *Haſtimatì*, or *Haſtimán*, a more rational appellation for the *Tacazzè*, ſince there are in fact many elephants in the country which it waters. We muſt beware of confounding SANC'HANA'GA or the *Elephant* of *Sanc'ha-dwíp*, with SANC'HA-NA'GA, or the *Shell-ſerpent*, of whom we have already given a ſufficient account, and concerning whom we have nothing to add, except that the people of the mountains, now called *Hubáb*, have legendary traditions of a ſnake, who formerly reigned over them, and conquered the kingdom of *Sirè*.

V. Concerning the river *Nandá*, or the *Nile* of *Abyſſinia*, we meet with the following tales in the *Padmacóſha*, or *Treaſure of Lotos-flowers*. A king named APYA'YANA, finding himſelf declining very low in the vale of years, reſigned his throne to APA'MVARSA, his ſon, and repaired with his wife SA'RMADA' to the hermitage of a renowned and holy *Bráhmen*, whoſe name was MRICA, or MRICU, intending to conſult him on the mode of entering into the *Aſrama*, or order, called *vánapreſt'ha:* they found only the ſon of the ſage, named *Márca*, or *Márcava*, who gave them full inſtructions, and accompanied them to the hilly parts of the country, where he adviſed them to reſide. When they arrived at their deſtined retreat, the *Dévas*, pleaſed with their piety, ſcattered *flowers* on them like rain, whence the mountains were called *Puſhpavarſha*, according to the derivation of the Mythologiſts; but *Puſhpavarſham*, which is the name of the country round them, may ſignify no more than the region of flowers: the Gods were not ſatisfied with a ſhower of bloſſoms, and when the firſt ceremonies were performed at *Puſhpa-verſa-ſt'hán*, they *rained* alſo *tears of joy*, which being mingled with thoſe of the royal pair and the

the pious hermit, formed the river *Nandà*, whoſe waters haſtened to join the *Cálì*, and their united ſtreams fell at length into the *Sanc'hábdhi*, or ſea of *Sanc'ha*. The goddeſs who preſided over the *Nandà*, paſſed near the manſion of a ſage, named SA'NTAPANA, a child of SANTAPANA, or the Sun, who ran with delight to meet her and conducted her near his hermitage, where *Dévatás* and *Ríſhis* were aſſembled to pay her divine honours: they attended her to the place of her confluence with the great *Críſhnà*, near which was afterwards built *Sántapana-ſt'hán*, and there the ſage fixed a *linga*, or emblem of SA'NTAPANA'SIVA, to which proſtrations muſt be made, after preſcribed ablution in the hallowed waters, by all ſuch as deſire a ſeat in the manſions of *Swerga*.

The mountains and country of *Puſhpavarſha* ſeem to be thoſe round the lake *Dembea*, which immediately after the rains, ſays Mr. BRUCE, look, from the bloſſoms of the *Wanzey*, as if they were covered with white linen or new fallen ſnow. DIODORUS calls them *Pſeuaras* in the oblique caſe; and STRABO, *Pſebœos*; the lake itſelf being alſo named *Pſeboa*, or *Pſebo*, from the *Sanſcrit* word *puſhpa*. By one of the old *Hindu* writers, the river *Nandá* is placed between *Barbara* and *Cuſha-dwip*; by another, in *Sanc'ha-dwip* itſelf; but this is eaſily reconciled, for, according to the more ancient diviſion of the earth, the exterior *dwip* of CUSHA was conſidered as a part of *Sanc'ha-dwip*; though, in the new diviſion, it is juſt the reverſe; all agree, that the *Nanda* runs, in great part of its courſe, from ſouth to north; and hence many *Bráhmens* draw a concluſion, which by no means follows, that the *Cálì*, which it joins, muſt flow from weſt to eaſt. *Sántapana-ſt'hán*, I conceive to have ſtood at the *prayága* or *trivéní*, that is, at the confluence of the ſmaller *Críſhná* with the united waters of the *Nandá* and the *Cálì*; and I ſuppoſe it to have been the APOLLINIS *oppidum* of PLINY *, or the capital of the *Adiabaræ*, called alſo *Megabari*, whom I have already mentioned: for SA'NTAPANA was an *avátar*, or incarnate form of the Sun, and the country round is *aſrama*, or hermitage, is known to this day by the name of *Kuara*, which means the Sun, according to Mr. BRUCE, and which is no other than the *Sanſcrit* word *Cwára*, or *going* round the *earth*: the *Nandá*, I preſume, or *Nile* of *Abyſſinia*, was alſo named the river of SA'NTAPANA, whence the *Greeks* firſt made *Aſtapún* in the oblique caſe, and thence, as uſual, formed the nominative *Aſtapus*. According to the *Puránas*, the *Nandá*, and the Little *Críſhná* unite, before they fall into the *Cálì*; and PTOLEMY alſo ſuppoſes, that they join

* Lib. 6. cap. 30.

near

near the ſouthern border of *Meroe*, and then are divided, one branch flowing eaſtward, and another weſtward, into the main body of the *Nile*: that inquiſitive geographer acknowledges himſelf indebted for much uſeful information to many learned *Indians*, whom he knew at *Alexandria*, and thoſe *Hindus* were probably acquainted with the *Puránas*; but ERATOSTHENES was better informed than PTOLEMY, with reſpect to the rivers in queſtion; and the miſtake of the *Hindu* authors may have ariſen from a fact, mentioned by Mr. BRUCE, that, during the rains, the floods divide themſelves, part running weſtward into the *Nile*, part eaſtward into the *Ta-eazzè*. It ſhould not be omitted, that the country of the ſage MRICU and his ſon MA'RCAVA, ſeems to be that of the *Macrobii*, now inhabited by the *Gonguas*, *Gubas*, and *Shangallas*; the *Greeks*, according to their cuſtom, having changed *Marcaba* into *Macrobios*, or long-lived; though that country, ſays the *Abyſſinian* traveller, is one of the moſt unhealthy on earth: indeed, if MA'RCANDE'YA, the ſon of MRICANDU, be the ſame perſon with MA'RCAVA, he was truly *Macrobios*, and one of the nine *long-lived* ſages of the *Puráns*.

VI. The next legend is taken from the *Mahácalpa*; and we introduce it here as illuſtrative of that, which has been related in the ſecond ſection, concerning the two *Indian* Gods of Medicine, to whom ſome places in *Egypt* were conſecrated.

A moſt pious and venerable ſage, named RISHI'CE'SA, being very far advanced in years, had reſolved to viſit, before he died, all the famed places of pilgrimage; and, having performed his reſolution, he bathed at laſt in the ſacred water of the *Cálì*, where he obſerved ſome fiſhes engaged in amorous play, and reflecting on their numerous progeny, which would ſport like them in the ſtream, he lamented the improbability of leaving any children: but ſince he might poſſibly be a father, even at his great age, he went immediately to the king of that country, HIRANYAVERNA, who had fifty daughters, and demanded one of them in marriage. So ſtrange a demand gave the prince great uneaſineſs; yet he was unwilling to incur the diſpleaſure of a ſaint, whoſe imprecations he dreaded: he, therefore, invoked HERI, or VISHNU, to inſpire him with a wiſe anſwer, and told the hoary philoſopher, that he ſhould marry any one of his daughters, who of her own accord ſhould fix on him as her bridegroom; the ſage, rather diſconcerted, left the palace; but, calling to mind the two ſons of ASWINI', he haſtened to their terreſtrial abode, and requeſted that they would beſtow on him both youth and beauty: they immediately conducted him to *Abhimatada*, which we ſuppoſe to be *Abydus* in Upper *Egypt*; and, when he had bathed in the pool of *Rúpayauvana*, he was reſtored to the flower of his age with

50615

with the graces and charms of CA'MADE'VA. On his return to the palace, he entered the ſecret apartments, called *antahpura,* where the fifty princeſſes were aſſembled; and they were all ſo tranſported with the viſion of more than human beauty, that they fell into an *ecſtacy,* whence the place was afterwards named *Móha-ſt'hán,* or *Móhana,* and is, poſſibly, the ſame with *Mohannan:* they no ſooner had recovered from their trance, than each of them exclaimed, that ſhe would be his bride; and, their altercation having brought HIRANYAVERNA into their apartment, he terminated the conteſt, by giving them all in marriage to RISHICE'SA, who became the father of a hundred ſons; and, when he ſucceeded to the throne, built the city of *Suc'haverddhana,* framed *vimánas,* or celeſtial, ſelf-moving cars, in which he viſited the gods, and made gardens abounding in delights, which rivalled the bowers of INDRA; but, having gratified the deſire which he formed at *Matſyaſangama,* or the place where the *fiſh* were *aſſembled,* he reſigned the kingdom to his eldeſt ſon HIRANYAVRIDDHA, and returned in his former ſhape to the banks of the *Cálì,* where he cloſed his days in devotion.

VII. A very communicative *Pándit* having told me a ſhort ſtory, which belongs to the ſubject of this ſection, it ſeems proper to mention it, though I do not know from what *Purán* it is taken. ARUNA'TRI, the fifth in deſcent from ATRI before named, was performing religious rites on the *Dévánica* mountains, near the ſite of the modern *Cábul,* when a hero, whoſe name was TULYA, deſired his ſpiritual advice; informing him, that he had juſt completed the conqueſt of *Barbara,* ſubdued the *Syámamuc'has,* who lived to the eaſt of the river *Cálì,* and overcame the *Sanc'-háyanas,* but that ſo great an effuſion of blood, for the ſake of dominion and fame, had ſtained his ſoul with a ſinful impurity, which he was deſirous of expiating: the Sage accordingly preſcribed a fit penance, which the conqueror performed in the interior *Cuſha-dwíp.* A certain THOULES, or TAULES, is mentioned in *Egyptian* hiſtory as a ſon of ORUS, the Shepherd.

VIII. In the firſt part of this eſſay, we intimated an opinion, that *Ugrà-ſt'hán* was a part of *Memphis,* and that UGRA, whom the *Hindus* make a king of *Dwáraca* in *Gujjara-dés* or *Gujarát,* was the UCHOREUS, or OGDOUS, of the *Greeks;* nor is it impoſſible, that VEXORIS, who is repreſented as a great conqueror, was the ſame perſon with UCHOREUS. The ſtory of UGRA, or UGRASE'NA, we find in a book, entitled, *Amaréſwara-ſangraha-tantra;* from which the following paſſage is verbally tranſlated: "UGRASE'NA, chief of kings, was a bright ornament of the *Yádava* "race; and, having taken CRĬSHNA for his aſſociate, he became ſovereign of all "the

"the *Dwípas*; the *Devás*, the *Yacſhas*, and the *Rácſhaſas*, paid him tribute again "and again; having entered *Cuſha-dwíp*, and vanquiſhed its princes, elate with "pride, the monarch raiſed an image of ISWARA on the banks of the river *Cálì*, "whence the God was famed by the title of UGRE'SWARA, and the place was called "*Ugra-ſt'hána*."

IX. The following legend from the *Uttarac'handa* is manifeſtly connected with the oldeſt hiſtory and mythology in the world. INDRA, king of *Méru*, having ſlain a *Daitya* of the ſacerdotal claſs, was obliged to retire from the world, in order to perform the penance ordained for the crime of *Brahmahatyá*, or the murder of a *Bráhmen*: his dominions were ſoon in the greateſt diſorder, and the rebel *Daityas* oppreſſed the *Dévas*, who applied for aſſiſtance to NAHUSA, a prince of diſtinguiſhed virtues, whom they unanimouſly elected king of their heavenly manſions, with the title of DE'VANAHUSHA. His firſt object was to reduce the *Daityas* and the ſovereigns of all the *dwíps*, who had ſhaken off their allegiance; for which purpoſe he raiſed an immenſe army, and marched through the interior *Cuſha-dwíp*, or *Iran* and *Arabia*, through the exterior *dwíp* of CUSHA, or Ethiopia, through *Sanc'ha-dwíp* or *Egypt*, through *Varáha-dwíp*, or *Europe*, through *Chandra-dwíp*, and through the countries now called *Siberia* and *China*: when he invaded *Egypt*, he overthrew the combined forces of the *Cutila-céſas* and *Syáma-muc'has*, with ſo terrible a carnage, that the *Cálì* (a word which means alſo the *female devourer*), was reported to have ſwallowed up the natives of *Egypt*, whoſe bodies were thrown into her ſtream. During his travels he built many places of worſhip, and gave each of them the title of *Dévanáhuſham*: the principal rivers of the countries through which he paſſed, were alſo diſtinguiſhed by his name; NAHUSHA being an appellation of the *Nile*, of the *Chacſhu*, or *Oxus*, of the *Varáha* or *Iſter*, and of ſeveral others. He returned through *India* to *Méru*, but unhappily fell in love with SACHI' or PULO'MAJA', the conſort of INDRA, who ſecretly reſolved on perfect fidelity to her lord, and, by the advice of VRIHASPATI, regent of the planet *Jupiter*, and preceptor of the *Dévas*, promiſed NAHUSHA to favour his addreſſes, if he would viſit her in a *dólà*, or palanquin, carried on the ſhoulders of the holieſt *Bráhmans*: he had ſufficient influence to procure a ſet of reverend bearers; but ſuch was the ſlowneſs of their motion, and ſo great was his eagerneſs to ſee his beloved, that he ſaid, with impatience, to the chief of them, *Serpe, Serpe*, which has preciſely the ſame ſenſe in *Sanſcrit* and in *Latin*; and the ſage, little uſed to ſuch an imperative, anſwered, "Be thyſelf a "ſerpent." Such was the power of divine learning, that the imprecation was no

ſooner

ſooner pronounced, than the king fell on the earth in the ſhape of that large ſerpent which is called *Ajágara* in *Sanſcrit*, and *Boa* by naturaliſts: in that ſtate of humiliation he found his way to the *Black Mountains*, and glided in ſearch of prey along the banks of the *Cálì*; but, having once attempted to ſwallow a *Bráhmen* deeply learned in the *Védas*, he felt a ſcorching flame in his throat, and was obliged to diſgorge the ſage alive, by contact with whom, his own intellects, which had been obſcured by his fall, became irradiated, and he remembered with penitence his crime and its puniſhment. He ceaſed from that day to devour human creatures, and, having recovered his articulation, together with his underſtanding, he wandered through the regions adjacent to the *Nile*, in ſearch of ſome holy *Bráhmen* who could predict the termination of his deſerved miſery: with this view he put many artful queſtions to all whom he met, and at length received information, that he would be reſtored to his priſtine ſhape by the ſons of PANDU. He had no reſource, therefore, but patience, and again traverſed the world, viſiting all the temples and places of pilgrimage, which he had named from himſelf in his more fortunate expedition: at laſt he came to the ſnowy mountains of *Himálaya*, where he waited with reſignation for the arrival of the PAN'DAVAS, whoſe adventures are the ſubject of VYASA's great Epic poem.

This fable of DE'VA-NAHUSHA, who is always called DEO-NAUSH, in the popular dialects, is clearly the ſame in part with that of DIONYSIUS, whether it allude to any ſingle perſonage, or to a whole colony; and we ſee in it the origin of the *Grecian* fiction, that of DIONYSIUS was ſewed up in the *Méros*, or *thigh*, of JUPITER; for *Méru*, on which DE'VA-NAHUSHA reſided for a time, was the ſeat of INDRA, or ZEUS *Ombrios*: by the way, we muſt not confound the celeſtial *Méru* with a mountain of the ſame appellation near *Cábul*, which the natives, according to the late Mr. FORSTER, ſtill call *Mercoh*, and the *Hindus*, who conſider it as a ſplinter of the heavenly mountain, and ſuppoſe, that the gods occaſionally deſcend on it, have named *Méru-ſringa*. Names are often ſo ſtrangely corrupted, that we ſuſpect DEO-NAUSH to be alſo the *Scythian* monarch, called TANAUS by JUSTIN *, and TAUNASIS by JORNANDES, who conquered *Aſia*, travelled into *Egypt*, and gave his name to the river, otherwiſe called *Iaxartes*; we have already mentioned *Nous* as a *Greek* name of the *Nile*, and the *Danube* or *Iſter* was known alſo by that of *Danuſius* or *Tanais* †; in which points the *Puránas* coincide with HORUS, APOLLO, EUSTATHIUS, and STRABO.

* Lib. 1. cap. 1. and Lib. 2. cap. 36.

† *Euſtath.* on *Dionyſ. Perieg.* v. 298.

X. The

X. The author of the *Vis'va-pracás* gives an account of an extraordinary perſonage, named DARDA'NASA, who was lineally deſcended from the great JAMADAGNI: his father, ABHAYA'NA'S lived on the banks of the river *Vitaſtà*, where he conſtantly performed acts of devotion, explained the *Védas* to a multitude of pupils, and was choſen by CHITRARAT'HA, who though a *Vaiſ'ya*, reigned in that country, as his *guru*, or ſpiritual guide. Young DARDA'NA'SA had free acceſs to the ſecret apartments of the palace, where the daughter of the king became enamoured of him, and eloped with him through fear of detection, carrying away all the jewels and other wealth that ſhe could collect: the lovers travelled from hill to hill, and from foreſt to foreſt, until they reached the banks of the *Cálì*, where their property ſecured them a happy retreat. PRAMO'DA, a virtuous and learned *Bráhmen* of that country, had a beautiful daughter, named PRAMADA', whom DARDA'NA'SA, with the aſſent of the princeſs, *took by the hand*, that is *married*, according to the rites preſcribed in the *Véda*; and his amiable qualities gained him ſo many adherents, that he was at length choſen ſovereign of the whole region, which he governed with mildneſs and wiſdom. His anceſtry and poſterity are thus arranged:

JAMADAGNI.

Jámadagni,	*Abhayánás*,
Práchínás,	DARDA'NA'S,
Támránás,	*Vainabhrĭtánás*,
Náſhtránás,	*Técánás*,
Bhánjánás,	*Bháhánás*,
Craunchánás,	*Traicáyanyás*,
Abhayájatánás,	*Avadátánás*.

The river, here named *Vitaſtà*, and vulgarly *Jelam*, is the *Hydaſpes* of the *Greeks*: a nation who lived on its banks, are called *Dardaneis*, by DIONYSIUS *; and the *Grecian* DARDANUS was probably the ſame with DARDA'NA'SA, who travelled into *Egypt* with many aſſociates. We find a race of *Trojans* in *Egypt*; a mountain, called anciently *Troicus*, and now *Tora*, fronted *Memphis*; and at the foot of it was a place actually named *Troja*, near the *Nile*, ſuppoſed to have been an old ſettlement of *Trojans*, who had fled from the forces of MENELAUS; but

* Perieg. v. 11—38.

CTESIAS, who is rather blameable for credulity that for want of veracity, and moſt of whoſe fables are to be found in the *Puráns*, was of a different opinion; for he aſſerted, according to DIODORUS of *Sicily*, that *Troja* in *Egypt* was built by *Trojans*, who had come from *Aſſyria* under the famed SEMIRAMIS *, named SAMI'RAMA' by the ancient *Hindu* writers; and this account is confirmed by HERODOTUS, who ſays, that a race of DARDANIANS were ſettled on the banks of the river *Gyndes*, near the *Tigris* †, where, I imagine, DARDANA'SA and his aſſociates firſt eſtabliſhed themſelves, after their departure from India ‡. EUSTATHIUS, in his comment on the *Periegeſis*, diſtinguiſhes the *Dardaneis* from the *Dardanoi*, making the firſt an *Indian*, and the ſecond a *Trojan*, race ‖; but it ſeems probable, that both races had a common origin: when HOMER gives the *Trojans* the title of *Meropians*, he alludes to their eaſtern origin from the borders of *Méru*; the very name of King MEROPS being no other than MERUPA, or ſovereign of that mountainous region.

XI. We come now to a perſon of a different character; not a prince or a hero, but a bard, whoſe life is thus deſcribed in the *Vis'vaſára*. On the banks of the *Cálì* dwelt a *Bráhmen*, whoſe name was LE'C'HA'YANA'S; a ſage rigorouſly devout, ſkilled in the learning of the *Védas*, and firmly attached to the worſhip of HERI; but, having no male iſſue, he was long diſconſolate, and made certain oblations to the God, which proved acceptable; ſo that his wife SA'NCRITI became pregnant, after ſhe had taſted part of the *charu*, or cake of rice, which had been offered: in due time ſhe was delivered of a beautiful boy, whom the *Bráhmens*, convened at the *játacarma*, or ceremony on his birth, unanimouſly agreed to name HERIDATTA, or *given* by the divinity. When the *ſanſcára*, or inſtitution of a *Bráhmen*, was completed, by his inveſtiture with the ſacerdotal ſtring, and the term of his ſtudentſhip in the *Véda* was paſt, his parents urged him to enter into the *ſecond* order, or that of a married man; but he ran into the woods, and paſſed immediately into the *fourth* order, diſclaiming all worldly connections, and wholly devoting himſelf to VISHNU. He continually practiſed the *ſamádhiyóga*, or *union with the deity by contemplation*; fixing his mind ſo intenſely on GOD, that his vital ſoul ſeemed concentrated in the *Brahma-randhra*, or pineal gland, while his animal faculties were ſuſpended, but his body ſtill uncorrupted, till the reflux of the ſpirits put them again in

* B. 2. † B. 1. c. 189. ‡ Iliad. Y. v. 215.

‖ Οἱ Δαρδανεῖς Ἰνδικὸν ἔθνος, οἱ μέντοι Δάρδανοι, Τρωϊκόν. *Euſtath.* on *Dionys.* v. 11. 38.

motion:

motion: a ſtate, in which the *Hindus* aſſert, that ſome *Yógis* have remained for years, and the fanciful gradations of which are minutely deſcribed in the *Yóga-ſáſtra*, and even delineated in the figures called *Shatchacra*, under the emblems of lotos flowers, with different numbers of petals, according to the ſuppoſed ſtations of the ſoul, in her myſtical aſcent. From this habit of *merging* all his vital *ſpirits*, in the idea of the Supreme Being, HERIDATTA was named LI'NA'SH; a name which the people repeated with enthuſiaſm; and he became the *guru*, or ſpiritual director, of the whole nation: he then rambled over the earth, ſinging and dancing, like a man in a phrenſy; but he ſang no hymns, except thoſe which himſelf had compoſed; and hence it came that all older hymns were neglected, while thoſe of LINA'SU alone were committed to memory from his lips, and acquired univerſal celebrity. Other particulars of his life are mentioned in the *Puránas*, where fragments of his poetry are, moſt probably, cited: I have no doubt, that he was the ſame perſon with the LINUS of the *Greeks*; and, if his hymns can be recovered, they will be curious at leaſt, if not inſtructive. LINA'SU was the eighth in deſcent from the ſage BHARADWA'JA, whom ſome call the ſon of VRIHASPATI, or the regent of JUPITER: he is ſaid to have married at an advanced age, by the ſpecial command of HERI, and five of his deſcendants are named in the following pedigree:

BHARADWA'JA',
Cárijháyanás,
Cſhámyáyanás,
Gauriváyanás,
Cárunáyanás,
Bhrityáyanás,
Sic'hayánás,
Lec'háyanás,
LI'NA'SU, or *Línáyanás*,
Gaundáyanás,
Máſháyanás,
Cámacáyanás,
Sánc'haláyanás,
Cás'ucáyanás.

XII. The tale of LUBDHACA relates both to the morals and aſtronomy of the *Hindus*, and is conſtantly recited by the *Bráhmens* on the night of SIVA, which falls on the *fourteen'h* of *Mágha*, or of *P'hálgun*, according as the month begins from the oppoſition or the conjunction.

LUBDHACA was deſcended from the race of *Palli*, and governed all the tribes of *Cirátas*: he was violent and cruel, addicted paſſionately to the pleaſures of the chaſe, killing innocent beaſts without pity, and eating their fleſh without remorſe. On the *fourteenth* lunar day of the dark half of *P'hálgun*, he had found no game in the foreſt;

foreſt; and at ſun-ſet, faint with hunger, he roved along the banks of the *Criſhnâ*, ſtill earneſtly looking for ſome animal whom he might ſhoot: at the beginning of night he aſcended a *Bilva-tree*, which is conſecrated to MAHA'DE'VA, whoſe emblem had been fixed under it, near a ſpring of water; and, with a hope of diſcerning ſome beaſt through the branches, he tore off the leaves, which dropped on the *linga*, ſprinkling it with dew; ſo that he performed ſacred rites to the God, without intending any act of religion. In the firſt watch of the night a large male antelope came to the ſpring; and LUBDHACA, hearing the ſound which he made in drinking, fixed his arrow, and took aim at the place whence the noiſe proceeded; when the animal, being endued by SIVA with ſpeech and intellect, told him, that he had made an aſſignation with a beloved female, and requeſted him to wait with patience till the next day, on which he promiſed to return; the mighty hunter was ſoftened, and, though nearly famiſhed, permitted the antelope to depart, having firſt exacted an oath, that he would perform his engagement. A female antelope, one of his conſorts, came in the ſecond watch to drink at the ſpring; who was in like manner allowed to eſcape, on her ſolemn promiſe, that ſhe would return when ſhe had committed her helpleſs young to the care of a ſiſter; and thus, in the third and fourth watches, two other females were releaſed for a time, on pretences nearly ſimilar, and on ſimilar promiſes. So many acts of tender benevolence, in ſo trying a ſituation, and the rites to MAHA'DE'VA, which accompanied them from watch to watch, though with a different intention, were pleaſing to the God, who enlightened the mind of LUBDHACA, and raiſed in him ſerious thoughts on the cruelty of ſlaying the innocent for the gratification of his appetite: at early dawn he returned to his manſion, and, having told his family the adventure of the night, aſked whether, if he ſhould kill the antelope, they would participate his guilt, but they diſclaimed any ſhare in it, and inſiſted, that, although it was his duty to provide them with ſuſtenance, the puniſhment of ſin muſt fall on him ſolely. The faithful and amiable beaſt at that moment approached him, with his three conſorts and all his little ones, deſiring to be the firſt victim; but LUBDHACA exclaimed, that he would never hurt his friend and his guide to the path of happineſs, applauded them for their ſtrict obſervance of their promiſes, and bade them return to the woods, into which he intimated a deſign of following them as a hermit: his words were no ſooner uttered, that a celeſtial car deſcended with a meſſenger from SIVA, by whoſe order the royal convert and the whole family of antelopes were ſoon wafted, with radiant and incorruptible bodies, to the ſtarry regions, fanned by heavenly nymphs, as they roſe,

and

and ſhaded by genii, who held umbrellas, while a chorus of ethereal ſongſters chanted the praiſes of tenderneſs to living creatures, and a rigorous adherence to truth. LUBDHACA was appointed regent of *Sirius*, which is called the *yóga* ſtar; his body is chiefly in our Greater Dog, and his *arrow* ſeem to extend from β in that aſteriſm to κ in the knee of ORION, the *three* ſtars in whoſe neck are the lunar manſion *Mrigaſiras*, or the *head* of the male *antelope*, who is repreſented looking round at the archer; the *three* ſtars in the belt are the females, and thoſe in the ſword, their young progeny; MAHA'DE'VA, that he might be near his favourites, placed himſelf, it is ſaid, in the next lunar manſion *Ardrà*, his head being the bright ſtar in the ſhoulder of ORION, and his body including thoſe in the arm, with ſeveral ſmaller ſtars in the galaxy. The ſon of LUBDHACA ſucceeded him on earth, and his lineal deſcendants yet reign, ſays the author of the *Purán*, on the delightful banks of the *Criſhná*.

This legend proves a very material fact, that the *Pallis* and *Cirátas* were originally the ſame people: it ſeems to indicate a reformation in ſome of the religious tenets and habits of the nations bordering on the *Criſhná*, and the whole appears connected with the famous *Egyptian* period regulated by the heliacal riſing of *Sirius*: the river here mentioned I ſuppoſe to be the ſmaller *Criſhná*, or the *Siris* of the ancients, ſo named, as well as the province of *Siré*, from the word *Seir*, which means a *dog*, ſays Mr. BRUCE, in the language of that country. The conſtellations of ORION and the two Dogs point at a ſimilar ſtory differently told; but the name of LUBDHACA ſeems changed by the *Greeks* into LABDACUS; for ſince, like the ancient *Indians*, they applied to their new ſettlements, the hiſtory and fables of their primitive country, they repreſent LABDACUS as the grandſon of CADMUS, the ſon of POLYDORUS (for ſo they were pleaſed to diſguiſe the name), and the father of LAIUS: now CADMUS, as we have ſhown, as CARDAME'SWARA, or MAHA'DE'VA, and POLYDORUS, or POLYDOTUS, was PALLIDATTA, the *gift* of the national God PALLI or NAIRRIT. As to LABDACUS, he died in the flower of his age, or diſappeared, ſay the *Hindus*, and was tranſlated into heaven; but, during his minority, the reigns of government were held by LYCUS, a ſon of NYCTEUS, or NACTUNCHARA: he was ſucceeded by LAIUS, which, like *Páli*, means a *herdſman*, or *ſhepherd*, for λαία, λεία, and λεὶη ſignify herds and flocks; and thus we find a certain LAIUS, who had a ſon BUCCOLION, and a grandſon PHIALUS, both which names have a reference to *paſture*, for the ſhepherds were called by the *Greeks* Ἀγελαῖοι, and AGELAIA, was ſynonimous with PALLAS. The ſon of LAIUS was

ŒDIPUS,

ŒDIPUS, with whoſe dreadful misfortune, as we intimated in the firſt ſection, the *Hindus* are not unacquainted, though they mention his undeſigned inceſt in a different manner, and ſay, that YO'GABRASHTA', whom they deſcribe as a flagitious woman, entered into the ſervice of ſome cowherds, after the miſerable death of her ſon MAHA'SU'RA, or the *Great Hero*, by LINA'SU, the ſon of LUBDHACA, who was deſcended from PALLI: the whole ſtory ſeems to have been *Egyptian*, though tranſferred by the *Greeks* to *Thebes* in their own country.

XIII. The laſt piece of hiſtory, mixed with an aſtrological fable, which I think it uſeful to add, becauſe it relates to *Barbara*, is the legend of DA'SA-RAT'HA, or the monarch, *whoſe car had borne him to ten regions*, or to the *eight* points, the zenith, and the nadir: it is told both in the *Bhawiſhya Purán* and the *Bráhmánda*. He was deſcended from SU'RYA, or HE'LI, which is a name of the Sun in *Greek* and in *Sanſcrit;* one of his anceſtors, the great RAGHU, had conquered the ſeven *dwípas*, or the whole earth, and VISHNU became incarnate in the perſon of his ſon RA'MACHANDRA. It happened in the reign of DASARAT'HA, that SANI, having juſt left the lunar manſion, *Critticá*, or the Pleiads, was entering the Hyads, which the *Hindus* call *Róhiní*, and that paſſage of SATURN is diſtinguiſhed by the appellation of *Sacata-bhéda*, or the *ſection of the wain*: an univerſal drought having reduced the country to the deepeſt diſtreſs, and a total depopulation of it being apprehended, the king ſummoned all his aſtrologers and philoſophers, who aſcribed it ſolely to the unfortunate paſſage of the malignant planet; and VASISHT'HA added, that, unleſs the monarch himſelf would attack SANI, as he ſtrongly adviſed, neither INDRA nor BRAHMA' himſelf could prevent the continuance of the drought for twelve years. DASARAT'HA that inſtant aſcended his miraculous car of pure gold, and placed himſelf at the entrance of *Róhiní*, blazing like his progenitor the Sun, and drawing his bow, armed with the tremendous arrow *Sanhárâſtra*, which attracts all things with irreſiſtible violence: SANI, *the ſlow-moving child of* SU'RYA, *dreſſed in a blue robe, crowned with a diadem, having four arms, holding a bow, a ſpiked weapon, and a cimeter* (thus he is deſcribed in one verſe), diſcerned his formidable opponent from the laſt degree of *Crittică*, and rapidly deſcended into the land of *Barbara*, which burſt into a flame, while he concealed himſelf far under ground. The hero followed him; and his legions, marching to his aſſiſtance, periſhed in the burning ſands; but SANI was attracted by the magnetick power of the *Sanhárâſtra*, and, after a vehement conflict, was overpowered by DASARAT'HA, who compelled him to promiſe, that he never more would attempt to paſs through the wain of *Róhiní:*

the

the victor then returned to his palace, and the regent of the planet went to SANI-*ſ'hán*, in *Barbara*, while the ground, on which he had fought, aſſumed a red hue. The *Hindu* aſtrologers ſay, that SANI has hitherto performed his promiſe, but that, in four or five years, he will approach ſo nearly to *Róhinì*, that great miſchief may be feared from ſo noxious a planet; who has nothing in this age to apprehend from a hero in a ſelf-moving car with an irreſiſtible weapon: they add, that MANGALA, or *Mars*, the child of PRIT'HIVI', has alſo been prevented from traverſing the waggon of *Róhinì*, but that VRIHASPATI, SUCRA, and BUDHA, or *Jupiter*, *Venus*, and *Mercury*, paſs it freely and innocently, while it is the conſtant path of SO'MA, or the Moon, of whom the beautiful *Róhinì*, or *Aldeberán*, is the favourite conſort.

The hiſtory of DASARAT'H being immediately connected with that of RA'MACHANDRA, and conſequently of the firſt colonies who ſettled in *India*, it may properly conclude this third ſection, which has been confined to the demigods and ſages, who diſtinguiſhed themſelves in the countries bordering on the *Nile* of *Ethiopia*; and, whatever may be thought of ſome etymological *conjectures*, which I have generally confirmed by facts and circumſtances, it has been proved, I truſt, by poſitive *evidence*, that the ancient *Indians* were acquainted with thoſe countries, with the courſe of that celebrated river, and with *Miſra*, or *Egppt*.

REMARKS ON THE PRECEDING ESSAY.

By the PRESIDENT.

SINCE I am perſuaded, gentlemen, that the learned Eſſay on *Egypt* and the *Nile*, which you have juſt attentively heard, has afforded you equal delight with that which I have myſelf received from it, I cannot refrain from endeavouring to increaſe your ſatisfaction, by confeſſing openly, that I have at length abandoned the greateſt part of that natural diſtruſt and incredulity, which had taken poſſeſſion of my mind, before I had examined the ſources from which our excellent aſſociate, Lieutenant WILFORD, has drawn ſo great a variety of new and intereſting opinions. Having lately read again and again, both alone and with a *Pandit*, the numerous and original paſſages in the *Puránas* and other *Sanſcrit* books, which the writer of the diſſertation adduces in ſupport of his aſſertions, I am happy in bearing teſtimony to his perfect good faith and general accuracy, both in his extracts and in the tranſlations

tions of them; nor ſhould I decline the trouble of annexing literal verſions of them all, if our third volume were not already filled with a ſufficient ſtore of curious, and (my own part being excepted) of valuable, papers: there are two, however, of Mr. WILFORD's extracts from the *Puránas*, which deſerve a verbal tranſlation; and I, therefore, exhibit them word for word, with a full conviction of their genuineneſs and antiquity.

The firſt of them is a little poem, in the form of the hymns aſcribed to ORPHEUS, in praiſe of the *Nilá*, which all the *Bráhmens* allow to be a ſacred river in *Cuſha-dwíp*, and which we may confidently pronounce to be the *Nile*: it is taken from the *Scanda-purán*, and ſuppoſed to be the compoſition of VISVA'MITRA, the father of SACONTALA', with whoſe life you are well acquainted:

1. "*Cálì*, *Criſhná*, likewiſe NI'LA'; *'Syamá*, *Cálá*, and *Aſitá* alſo; *Anja-nábhá* "and *'Syámala*; *Méchacà* too and *Pávanì*;

2. "*Aghahá* and *Mócſhadá*,—theſe twelve proſperous names of the *Cálicà*, in "whatever receptacle of water.

3. "A man ſhall repeat at the time of bathing, he ſhall gain the fruit of an ablu- "tion in the *Cálì*. No ſtream on earth is equal to the river *Cálì* as a giver of in- "creaſe to virtue,

4. "He, who has bathed in her *ſtream*, is wholly releaſed from the murder of a "*Bráhmen* and every other crime: they, who have been offenders in the higheſt "degree, *are purified by her*, and conſequently they who have committed rather in- "ferior ſins.

5. "They, who have arrived on the bank of the river *Cálì*, are indubitably re- "leaſed from ſin; and even by a ſight of the river *Cálì*, an aſſemblage of crimes is "quite effaced.

6. "But to declare the fruit gained by bathing in her *waters*, is impoſſible even "for BRAHMA'. Theſe delightful *and* exquiſite names whatever men

7. "Shall repeat, even they are *conſidered as* duly bathed in the river *Cálì*: con- "ſtantly, therefore, muſt they be repeated with all *poſſible* attention."

Here I muſt obſerve, that the couplets of the *Véda*, which our learned friend has quoted at the beginning of his Eſſay, are in a ſimilar ſtrain to thoſe of VISVA'MITRA: nor have I a doubt of their authenticity, becauſe the fifth line is clearly in a very ancient dialect, and the original ends in the manner of the *Hindu* ſcripture, with a repetition of the two laſt words; but, either we muſt reject a redundant ſyllable

ſyllable in the concluding verſe (though ſuch a redundance often occurs in the *Véda*), or we muſt give a different verſion of it. The line is,

Sitáſitaſamáyógát param yáti nanivertatè;

which may thus be rendered: "By whoſe union of white and dark azure *waters*, "a mortal, *who bathes in them*, attains the Moſt High, *from whoſe preſence* he returns "not *to this terreſtrial manſion.*"

Of the ſecond paſſage, from the *Padma-purán*, the following tranſlation is minutely exact:

1. "To SATYAVARMAN, that ſovereign of the *whole* earth, *were* born three "ſons; the eldeſt SHERMA; then C'HARMA: and, *thirdly*, JYA'PETI by name:

2. "*They were* all men of good morals, excellent in virtue and *virtuous* deeds, "ſkilled in the uſe of weapons to ſtrike with or to be thrown; brave men, eager "for victory in battle.

3. "But SATYAVARMAN, being continually delighted with devout meditation, "*and* ſeeing his ſons fit *for dominion*, laid upon them the burden of government.

4. "*Whilſt* he remained honouring and ſatisfying the gods, and prieſts, and kine. "One day by the act of deſtiny, the king, having drunk mead,

5. "Became ſenſeleſs *and* lay aſleep naked: then was he ſeen by C'HARMA, and by him were his two brothers called,

6. "*To whom he ſaid:* What now has befallen? In what ſtate is this our ſire? "By thoſe two was he hidden with clothes, and called to his ſenſes again and "again.

7. "Having recovered his intellect, and perfectly knowing what had paſſed, he "curſed C'HARMA, *ſaying:* Thou ſhalt be the ſervant of ſervants;

8. "*And*, ſince thou waſt a laugher in their preſence, from laughter ſhalt thou "acquire a name. Then he gave to SHERMA the wide domain on the ſouth of the "ſnowy mountains,

9. "And to JYA'PETI he gave all on the north of the ſnowy mountain; but he, "by the power of religious contemplation, attained ſupreme bliſs."

Now you will probably think, that even the conciſeneſs and ſimplicity of this narrative are excelled by the *Moſaick* relation of the ſame adventure; but, whatever may be our opinion of the old *Indian* ſtyle, this extract moſt clearly proves, that the SATYAVRATA, or SATYAVARMAN, of the *Puráns*, was the ſame perſonage

(as it has been aſſerted in a former publication), with the NOAH of Scripture, and we conſequently fix the utmoſt limit of *Hindu* Chronology; nor can it be with reaſon inferred, from the identity of the ſtories, that the divine legiſlator borrowed any part of his work from the *Egyptians:* he was deeply verſed, no doubt, in all their learning, ſuch as it was; but he wrote what he knew to be truth itſelf, independently of their tales, in which truth was blended with fables; and their age was not ſo remote from the days of the patriarch, but that every occurrence in his life might naturally have been preſerved by traditions from father to ſon.

We may now be aſſured, that the old *Hindus* had a knowledge of *Miſr* and of the *Nile*; that the legends of CEPHEUS and CASSIOPEIA (to ſelect one example out of many), were the ſame with thoſe of CAPE'YA and CA'SYAPI'; that PERSEUS and ANDROMEDA were no other than PA'RASICA and ANTARMADA'; and that Lord BACON, whom, with all his faults (and grievous faults they were), we may juſtly call *the great architect of the temple of knowledge,* concluded rightly, that the Mythology of the *Greeks,* which their oldeſt writers do not pretend to have invented, was no more than a *light air, which had paſſed from a more ancient people into the flutes of the* Grecians, and which they modulated into ſuch deſcants as beſt ſuited their fancies and the ſtate of their new ſettlements; but we muſt ever attend to the diſtinction between *evidence* and *conjecture*; and I am not yet fully ſatisfied with many parts of Mr. WILFORD's Eſſay, which are founded on ſo uncertain a baſis as *conjectural* etymology; though I readily admit, that his etymologies are always ingenious, often plauſible, and may hereafter, perhaps, be confirmed by hiſtorical proof. Let me conclude theſe remarks with applying to him the words of the memorable writer, whom I have juſt named, and with expreſſing an opinion, in which I have no doubt of your concurrence, "That with perſevering induſtry, and with "ſcrupulous attention to genealogies, monuments, inſcriptions, names and titles, de-"rivations of words, traditions and archives, fragments of hiſtory, and ſcattered "paſſages from rare books on very different ſubjects, he has preſerved a venerable "*tablet from the ſhipwreck* of time; a work, operoſe and painful to the author, but "extremely delightful to his readers, and highly deſerving their grateful acknow-"ledgements."

A DESCRIPTION

A DESCRIPTION OF THE PLANT BUTEA.

By Dr. Roxburgh.

1. THE *Maduga* of the *Gentoos*, and *Plaſo* of the *Hortus Malabaricus* *, is a middle ſized, or rather a large tree, not very common on the lowlands of this coaſt, but much more ſo up among the mountains: it caſts its leaves during the cold ſeaſon: they come out again with the flowers about the months of *March* and *April*; and the ſeed is ripe in *June* or *July*.

Trunk irregular, generally a little crooked, covered with aſh-coloured, ſpongy, thick, ſlightly ſcabrous bark, the middle ſtrata of which contain a red juice hereafter to be mentioned.

Branches very irregularly bent in various directions; young ſhoots downy.

Leaves alternate, ſpreading, threed, from eight to ſixteen inches long. Leaflets emarginated, or rounded at the apex, leathery, above ſhining and pretty ſmooth, below ſlightly hoary, entire: the pair are obliquely oval from four to ſeven inches long, and from three to four and a half broad, the exterior one inverſe-hearted, or, in other words, tranſverſely oval, and conſiderably larger than the lateral.

Common Petiole round when young, downy, the length of the leaflets.

Stipules of the Petiole ſmall, recurved, downy.

——— of the Leaflets awled.

Raceme terminal, axillary, and form tuberoſities over the naked woody branchlets ſtanding in every direction, rigid, covered with a ſoft greeniſh purple down.

Flowers *Papilionaceous*, pendulous, pedicelled, faſcicled, large, their ground of a beautiful deep red, ſhaded with orange and ſilver-coloured down, which gives them a moſt elegant appearance.

Pedicles round, about an inch long, articulated near the apex, and covered with the ſame greeniſh velvet-like down.

Bracts, one below the inſertion of each pedicle, lanced, falling, two ſimilar but ſmaller, preſſing on the Calyx, falling alſo.

Calyx: *Perianth* bellied, leathery, two-lipped, *upper* lip large, ſcarce emarginated;

* The *Butea Frondoſa* of *Koenig*.

under

under three-toothed, covered with the ſame dark green down that the raceme and pedicles are covered with, withering.

COROL:

Banner reflected, egged, pointed, very little longer than the wings.

Wings aſcending, lanced, the length of the keel.

Keel below two-parted, aſcending, large, mooned, the length of the wings and banner.

STAMENS: filaments one and nine, aſcending in a regular ſemicircle, about as long as the corol.

Anthers equal, linear, erect.

PISTIL: *Germ* ſhort, thick, pedicelled, lanced, downy.

Style aſcending, a little larger than the filaments.

Stigma ſmall, glandulous.

PERICARP, *legume* pedicelled, large, pendulous, all but the apex where the ſeed is lodged, leafy, downy, about ſix inches long by two broad, never opening of itſelf.

SEED one, lodged at the point of the legume, oval, much compreſſed, ſmooth, brown, from an inch and a quarter to an inch and a half long, and about one broad.

From natural fiſſures, and wounds made in the bark of this tree during the hot ſeaſon, there iſſues a moſt beautiful red juice, which ſoon hardens into a ruby-coloured brittle aſtringent gum: but it ſoon loſes its beautiful colour, if expoſed to the air. To preſerve the colour, it muſt be gathered as ſoon as it becomes hard, and kept cloſely corked up in a bottle.

This gum, held in a flame of a candle, ſwells and burns away ſlowly, without ſmell or the leaſt flame, into a coal, and then into fine light white aſhes. Held in the mouth it ſoon diſſolves; it taſtes ſtrongly, but ſimply, aſtringent; heat does not ſoften it, but rather renders it more brittle; pure water diſſolves it perfectly: the ſolution is of a deep red colour; it is in a great meaſure ſoluble in ſpirits; but this ſolution is paler, and a little turbid; the watery ſolution alſo becomes turbid when ſpirit is added, and the ſpirituous more clear by the addition of water; diluted vitriolic acid renders both ſolutions turbid: mild cauſtic vegetable alkali changes the colour of the watery ſolution to a clear deep fiery red *: the ſpirituous it alſo

* With an alkalized decoction of this gum, I tried to dye cotton cloth prepared with alum, with ſugar of lead, and with a ſolution of tin in *aqua regia*; but the reds produced thereby were bad. that where alum was employed was the beſt.

deepens,

deepens, but in a leſs degree: *Sal Martis* changes the watery ſolution into a good durable ink.

Theſe are, I think, proofs that a very ſmall proportion of reſin is preſent in this ſubſtance: in this it differs eſſencially from the gum reſin called *Kino*, or *Gummi rubrum aſtringens*, which the *Edinburgh* college has taken into their Materia Medica (I have uſed the recent gum in making my experiments, which may make ſome difference); but as this can be moſt perfectly diſſolved in watery menſtrua, it may prove of uſe where a ſpirituous ſolution of the former (being the moſt complete) cannot be ſo properly adminiſtered, conſequently it may prove a valuable acquiſition alſo.

Infuſions of the flowers, either freſh or dried, dyed cotton cloth, previouſly impregnated with a ſolution of alum, or alum and tartar, of a moſt beautiful bright yellow, which was more or leſs deep according to the ſtrength of the infuſion: a little alkali added to the infuſion, changes it to a deep reddiſh orange; it then dyed unprepared cotton cloth of the ſame colour, which the leaſt acid changes to a yellow or lemon: theſe beautiful colours I have not been able to render perfectly permanent.

Amongſt numberleſs experiments, I expreſſed a quantity of the juice of the freſh flowers, which was diluted with alum water, and rendered perfectly clear by depuration: it was then evaporated by the heat of the ſun, into a ſoft extract; this proves a brighter water-colour than any gamboge I have met with. It is one year ſince I firſt uſed it, and it remains bright.

Infuſions of the dried flowers yielded me an extract very little, if any thing, inferior to this laſt mentioned; they yield alſo a very fine durable yellow lake, and all theſe in a very large proportion.

The *Lac* inſects are frequently found on the ſmall branches and the petioles of the leaves of this tree. Whether the natural juices of its bark contribute to improve the colour of their red colouring matter, I cannot ſay: it would require a ſet of experiments accurately made on ſpecimens of lac gathered from the various trees it is found on, at the ſame time and as nearly as poſſible from the ſame place, to determine this point.

I do not find that the natives make any uſe of the gum or flowers, although they promiſe to be valuable: the former as a medicine, and the latter as a pigment and dying drug.

II. *Butea Superba* *, *Tiga Maduga* of the *Gentoos*, is a very large twining ſhrub, a native of the mountains. Flowering time, the beginning of the hot ſeaſon.

ROOT ſpindle-form, very large.

STEM twining, as thick as, or thicker than, a man's leg, woody, very long, running over large trees. Bark, aſh-coloured, pretty ſmooth.

BRANCHES like the ſtem, but ſmall, and with a ſmoother bark.

LEAVES alternate, threed, remote, very large.

LEAFLETS downy, in other reſpects as in *Butea Frondoſa*, but greatly larger: the exterior one is generally about twenty inches long, and broad in proportion, the lateral ſomewhat leſs.

RACEMES as in the former, but much larger.

FLOWERS alſo the ſame, only much larger, and more numerous.

CALYX divided as the other, but the diviſions longer and much more pointed.

COROL the ſame.

LEGUMES and Seed as in the former, but rather larger.

When this ſpecies is in full flower, I do not think the vegetable world offers a more gaudy ſhow: the flowers are incomparably beautiful, very large, and very numerous; the colours are ſo exceedingly vivid, that my beſt painter has not been able, with his utmoſt ſkill, to come any thing like near their brightneſs.

From fiſſures, &c. in the bark, the ſame ſort of ruby-coloured aſtringent gum exudes: the flowers alſo yield the ſame beautiful yellow dye and pigment.

Dr. ROXBURGH's Deſcription of the *Nerium Tinctorium* would have been ſubjoined; but the publication of it is delayed, until the Society have been favoured with the reſult of his farther experiments.

ON THE MANUFACTURE OF INDIGO AT AMBORE.

By Lieutenant Colonel CLAUDE MARTIN.

I PRESENT the ſociety with a ſhort deſcription of the proceſs obſerved in the culture and manufacture of Indigo, in this part of *India*. The *Ambore* diſtrict is compriſed within a range of ſurrounding hills of a moderate height: the river *Pallar*, declining from its apparent ſoutherly direction, enters this diſtrict about three miles

* So named by Dr. ROXBURGH.

from

from the eaſtward, waſhes the *Ambore Pettah*, a ſmall neat village, diſtant three miles to the ſouthward of the fort of that name, ſituated in a beautiful valley; the ſkirts of the hills covered with the Palmeira and Date trees, from the produce of which a conſiderable quantity of coarſe ſugar is made; this tract is fertilized by numerous rills of water conducted from the river along the margin of the heights and throughout the intermediate extent: this element being conveyed in theſe artificial canals (three feet deep) affording a pure and cryſtal current of excellent water for the ſupply of the Rice-fields, Tobacco, Mango, and Cocoanut plantations; the higheſt ſituated lands affording Indigo, apparently without any artificial watering, and attaining maturity at this ſeaſon, notwithſtanding the intenſeneſs of the heat, the thermometer under cover of a tent riſing to 100, and out of it to 120; the plant affording even in the drieſt ſpots good foliage, although more luxuriant in moiſter ſituations. I am juſt returned from examining the manufacture of this article. Firſt, the plant is boiled in earthen pots of about eighteen inches diameter, diſpoſed on the ground in excavated ranges, from twenty to thirty feet long, and one broad, according to the number uſed. When the boiling proceſs has extracted all the colouring matter aſcertainable by the colour exhibited, the extract is immediately poured into an adjoining ſmall jar fixed in the ground for its reception, and is thence laded in ſmall pots into larger jars diſpoſed on adjoining higher ground, being firſt filtered through a cloth; the jar, when three-fourths full, is agitated with a ſplit bamboo extended into a circle, of a diameter from thirteen to twenty inches, the hoop twiſted with a ſort of coarſe ſtraw, with which the manufacturer proceeds to beat or agitate the extract, until a granulation of the fecula takes place, the operation continuing nearly for the ſpace of three-fourths of an hour; a precipitant compoſed of red earth and water, in the quantity of four quart bottles, is poured into the jar, which after mixture is allowed to ſtand the whole night, and in the morning the ſuperincumbent fluid is drawn off through three or four apertures practiſed in the ſide of the jar in a vertical direction, the loweſt reaching to within five inches of the bottom, ſufficient to retain the fecula, which is carried to the houſes and dried in bags.

This is the whole of the proceſs recurred to in this part, which, I think, if adopted in *Bengal*, might in no ſmall degree ſuperſede the neceſſity of raiſing great and expenſive buildings, in a word, ſave the expenditure of ſo much money in dead ſtock, before they can make any Indigo in the *European* method, to which I have to add, that Indigo thus obtained poſſeſſes a very fine quality.

As I think theſe obſervations may be uſeful to the manufacturers in *Bengal*, I ſhould wiſh to ſee them printed in the Tranſactions of the *Aſiatick* Society.

Ambore, 2d April, 1791.

EXTRACT OF A TREATISE ON THE MANUFACTURE OF INDIGO.

By Mr. De Cossigny.

" THIS experiment (the *Indian* proceſs infallibly ſhows, that *Indigo* may be pro-
" duced by different methods, and how much it is to be regretted that the *European*
" artiſts ſhould remain conſtantly wedded to their *method* or *routine*, without having
" yet made the neceſſary inquiries towards attaining perfection. Many travellers
" on the coaſt of *Coromandel* have been ſtruck with the apparent ſimplicity of the
" means uſed by the *Indians* in preparing Indigo, from having ſeen their artiſts
" employed in the open air, with only earthen jars, and from not having duly exa-
" mined and weighed the extent of the detail of their proceſs, apprehend that it is
" effected by eaſier means than with the large vats of maſonry, and the machinery
" employed by *Europeans*; but they have been greatly miſtaken, the whole appear-
" ing a deluſive concluſion, from the following obſervation, viz. that one man can,
" in the *European* method of manufacture, bring to iſſue one vat containing fifty
" bundles of plant, which, according to their nature and quality, may afford from
" ten to thirty pounds of Indigo; whereas, by the *Indian* proceſs, one employed
" during the ſame time would probably only produce one pound of Indigo; the
" *European* method is therefore the moſt ſimple, as well as every art where machinery
" is uſed inſtead of manual labour."

NOTE.

Experience alone muſt decide between the oppoſite opinions of Colonel Martin and M. De Cossigny.

DISCOURSE THE NINTH, ON THE ORIGIN AND FAMILIES OF NATIONS.—*See the Works of Sir William Jones, Vol. I. p.* 129.

ASIATICK RESEARCHES:

OR,

TRANSACTIONS

OF THE

SOCIETY INSTITUTED IN BENGAL,

FOR INQUIRING INTO THE

HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES, AND LITERATURE,

OF

A S I A.

VOLUME THE FOURTH.

THE TENTH ANNIVERSARY DISCOURSE.—*See the Works of Sir William Jones, Vol. I. p.* 143.

ON THREE NATURAL PRODUCTIONS OF SUMATRA.

By JOHN MACDONALD, *Eſq.*

ON THE CAMPHOR OF SUMATRA.

IN anſwer to ſome queſtions put to me by the Preſident of the *Aſiatick* Society reſpecting camphor-oil, I have the pleaſure of giving the ſolution contained in the following ſhort account:—Camphor-oil, one of the eſſential oils, is actually camphor, before the operations of nature on it have reduced it to the concrete form in which it is found in the tree. When Mr. MARSDEN compoſed his juſtly-admired hiſtory of *Sumatra*, the prevalent opinion on this ſubject was, that the oil and the concreted camphor were never found in the ſame tree. I have the authority of a gentleman, Lieutenant LEWIS, well informed on this ſubject, from a reſidence of many years in the country producing the camphor, to differ from that generally accurate author, by ſaying, that he has ſeen a tree three quarters of a mile from the ſea; near *Tappanooly*, from which three *catties* (above three pounds) of camphor, and at the ſame time, near two gallons of oil had been procured. If a tree be old, and yield oil plentifully, the natives eſteem theſe two circumſtances ſure indications of its containing a conſiderable quantity of camphor. Mr. MACQUER, in his chemical dictionary, has remarked, that the nitrous acid diſſolves camphor without commotion, that the ſolution is clear and limpid, and that it is called camphor-oil. This affords a proof that the formed camphor is produced from the oil by a natural operation of compoſition, the decompoſition by means of the above ſolvent reducing the ſubſtance to its primary ſtate, previous to concretion. The *Achineſe* are reckoned the beſt judges of camphor; and the oil they collect undergoes a proceſs by diſtillation, leaving a reſiduum of inferior camphor. Trees of a certain age only yield

camphor.

camphor. It would ſeem that a certain time is requiſite for maturing the oil to that ſtate, when its contained camphor becomes fit for being concreted by the heat of the ſun acting on the tree and ſoil. The camphor-tree is one of the *Enneandria Monogynia* of LINNÆUS, and differs in a ſmall variation in the form of the leaf from the *Arbor Camphorifera Japonica, foliis laurinis fructu parvo, calyce breviſſimo.* The tree very much reſembles the Bay in leaves. The trunk is thick; the bark of a browniſh appearance; and the ramification ſtrong, cloſe, and extended. It is fond of a rich red loam, tending to a blackiſh clay, mixed with a crumbling ſtone of the colour of marl. It grows principally on the N.W. ſide of *Sumatra*, from the line 3° N. nearly. The wood is uſeful for domeſtic purpoſes, being ſoft and eaſily worked. It is by many imagined, that camphor is produced by a chemical proceſs. This is a miſtaken idea, farther than regards the inferior kind ariſing from the diſtillation of the oil. I ſhall give a brief account of the mode of obtaining and preparing it, as practiſed by the natives of *Sumatra*, from the time of the eſtabliſhment of the *Engliſh* on the iſland. The *Sumatrans*, previous to their ſetting out in queſt of camphor, aſſemble on the confines of the country they intend exploring, and diſcharge a variety of religious duties and ceremonies, calculated, in their opinion, to promote the future ſucceſs of their undertaking. They enter the woods, and, from experience, ſoon diſtinguiſh ſuch trees as contain camphor. They pierce them; and if they yield oil plentifully, it is preſumed they contain concreted camphor, which is found in ſmall whitiſh flakes, ſituated perpendicularly, in irregular veins, in and near the centres of the trees. The tree is cut down, divided into junks, and carefully diveſted of its camphor. When the oil has been drawn off from young trees, the camphor, which they afterwards afford, is of a leſs valuable nature, and is termed *belly* or *foot* camphor, in proportion to the degree of affinity it bears to *head*, or the beſt ſort. When brought for ſale, it is repeatedly ſoaked and waſhed in ſoapy water, to ſeparate from it all heterogeneous and ſandy particles that may have adhered to it. When clean, it will ſink in water, and be of a white, gloſſy, ſmooth appearance, tending to tranſparency. After it has been waſhed, it is paſſed through three ſieves of differing textures, ſo as to be divided into *head*, *belly*, and *foot* camphor: certain proportions of each compoſe the cheſts made up for the *China* market, where they are ſold for 350 l. ſterling, nearly. The *capoor* * (a word of *Arabick* origin) *matee*, or dead camphor, is carefully ſeparated from the three diviſions, by

* *Cáfúr* in *Arabick*, and *Carpúra* in *Sanſcrit*.

an

an acuteneſs of diſtinction, acquired by the eye and hand from habit and attention, and, being mixed with the imperfect kind mentioned above, is pounded in a mortar and diſtributed among proportional quantities of foot camphor. This *capoor-matee* is ſometimes procured by boiling down the thickeſt part of the oil, or by taking the ſediment of the beſt oil, after it has ſettled at leaſt twenty-four hours. Camphor-oil is found to be a ſovereign remedy for ſtrains, bruiſes, and other external pains, from its penetrating quality in entering the pores, and gently agitating the affected parts, ſo as to quicken the ſtagnated circulation. The internal, anodyne and diaphoretic, and the external, antiſpaſmodic and ſedative, virtues of camphor are well known. The oil is found to poſſeſs theſe in a certain degree, and to be uſeful in removing the painful ſpaſms of the nerves and tendons, by diſſipating the ſurrounding acrid humours. When the oil is uſed, it muſt be formed into a liniment, as it would alone occaſion pain from its ſtrength. The oil applied to ſores on horſes has been found very beneficial. In this caſe it ought to be mixed with the juice of the tobacco. *Sumatra* affords annually from fifteen to twenty *peculs* (of 133⅓ pounds each), of camphor, and more oil than there is at preſent a demand for. The *Chineſe* purchaſe it; and it is not clearly aſcertained whether they uſe it all in *China*, or make a factitious ſpecies of it, by admixture of *Japaneſe* camphor, for the *Europe* market: the latter is generally ſuppoſed. It is highly probable, that the price of camphor will, in proceſs of time, riſe to an enormous degree, as one tree in three hundred is not found to contain camphor, and, when found, is immediately cut down; in conſequence of which, the plant muſt ſoon become ſcarce, and the produce proportionably dear. It is to be hoped that the oil will, in this event, be found by the faculty to poſſeſs all the uſeful qualities of this valuable medicine. I have the ſatisfaction of accompanying this paper with a ſpecimen, though a ſmall one, of the camphor-wood, with a ſmall quantity of the ſubſtance in it, the reſt having evaporated from length of time. If this account ſhould afford any information to the Preſident and Members of the *Aſiatick* Society, my intention will be fully anſwered.

ON THE CORAL OF SUMATRA.

If this paper ſhould be deemed worthy of a place in the Tranſactions of the *Aſiatick* Society, the inſertion I muſt ſtill conſider as an indulgence, and my attempt, a proof that I am more anxious than able, to increaſe the general ſtock of *Eaſtern* natural

natural knowledge, recorded in the uſeful annals of the Society. Specimens of coral, for your acceptance, and for the illuſtration of this ſubject, are now forwarded.

The appearance of *Sumatran* coral does not altogether correſpond with the deſcriptions of the plant hitherto given *. This induces me to deſcribe ſuch parts as are imperfectly repreſented. The plant, to which the various ſpecies of coral belong, is one of the *Cryptogamiæ* of LINNÆUS, and may be reckoned one of the *Herbæ Marinæ* of *Tournefort*; of the *Herbæ imperfectæ* of Mr. RAY. It may be reduced to three colours, red, black, and whitiſh-yellow: the laſt is the moſt common in the *Eaſtern* ſeas. It is of a fungous texture, equally hard out of and in its natural element: and its pores are charged with a juice of a milky appearance, in ſome degree acrid. The bark covers every part of the tree, and contains a number of perforated *papillæ* terminating in tubes, having two or more holes in each, intended, I imagine, for the admiſſion of the matter affording nutriment to the plant. The internal projections of the *papillæ* adhere to the particles of ſand and ſtone on which the coral grows, and are the only appearance of roots it exhibits. On examining the internal extremities of theſe *papillæ* by means of glaſſes, ſome very ſmall ramifications are diſcovered. Theſe are very eaſily obſerved in the *papillæ*, which are attached to the bark of the root. The tree is ſaid to grow to the height of two feet: I have ſeen ſome as high as ten feet. From theſe and other differences in appearance, I am apt to think that ſome *European* and *Indian* corals are not the ſame, but ſpecies of the ſame genus. From the very rapid growth of coral on the weſt coaſt of *Sumatra*, and in the *Eaſtern* ſeas in general, as will be ſhown in this paper, there can ſubſiſt but little doubt that it is a vegetable ſubſtance; though there have not been wanting ſome, who have ſuppoſed it a foſſil formed like cryſtals and ſpars; and others, eminent naturaliſts, who have ranked it among the animal tribes. BOCCONE diſcovered that this plant encloſes a nutritious juice under its bark: and Count MARSIGLI remarked and obſerved its flowers and ſeeds. I ſhall here inſert MARSIGLI's accurate experiment, which affords the deciſion of almoſt abſolute demonſtration in favour of coral being a vegetating plant. "Having ſteeped ſome coral, freſh-gathered, in ſea-water, he perceived, in a ſhort time, that the little ruddy tubercles which appeared on the ſurface of the bark began gradually to unfold, and at length opened into white flowers in the form of ſtars, with eight points, which were ſuſtained by a little calyx, divided, in like manner, into eight parts. Upon

* See the remark at the end of this paper.

taking

taking the coral out of the water, the flowers immediately cloſed, and returned into red tubercles as before; which tubercles, being cloſely ſqueezed, yielded a ſort of milky juice: and upon returning the coral into the water as before, the tubercles, in an hour's time, opened, or flowered afreſh; and this was continued for ſix or eight days, when the buds, or tubercles, ceaſed to blow any more. In ten or twelve days they became detached from the coral, and ſunk to the bottom, in form of little yellow balls. Theſe tubercles then, according to the analogy of plants, ſhould be the flowers of coral; and the milky viſcid juice contained therein, the pollen. Accordingly it is held, that when this juice falls on a properly-diſpoſed body or nidus, a new coral ariſes therefrom; and the analyſis of coral anſwers preciſely to that of other ſea-plants, all of them affording a volatile urinous ſalt, and a thick blackiſh fetid oil."—Elementa Chemiæ of BOERHAAVE, page 135, Note, vol. 1. & Mem. de l'Acad. An 1708.

Whether, after all, the ſtriated *papillæ*, which are of a ſtellar figure, and the two or more apertures of which are divided, generally, into twelve parts, contain an animal whoſe labour produces the growth of the coral, or who inhabits the coral for its own immediate ſatisfaction, is a queſtion that has been much agitated, without affording any certain concluſions. Monſieur DE PEYSSONNEL, after having inquired into and diſcuſſed the various arguments for and againſt coral's being a petrification or a congelation, concludes that it is the work of an inſect, which he denominates an *Urtica*, *Purpura*, or *Polype*, that contracts in air, expands in water, and is ſenſible to the touch, or the action of an acid. From MARSIGLI's experiment, as recited above, I think we may ſafely conclude, that PEYSSONNEL miſtook the matter, and ſuppoſed a flower an inſect; for it is well known that many flowers, on being plunged into an acid, will exhibit ſigns of contraction and movement. We obſerve many growing ſubſtances which are inhabited by animals, or inſects, merely for their convenience, and not to promote the growth of ſuch ſubſtances, which they very frequently, on the contrary, retard. If an animal can be ſuppoſed to produce ſuch immenſe bodies of this ſubſtance, as I ſhall have occaſion to mention, whence does it derive the prodigious degree of nutriment requiſite for the purpoſe, as it is not found that it quits the centre of its ſtriated habitation? why do not theſe *vermiculi marini* leave cells behind them, as they advance the growth of the coral? We find none, but, on the contrary, the ſurface uniformly ſmooth and even. As for the external cells, they are the channels that convey nouriſhment, and correſpond to the fibres of plants. It muſt remain, however, in ſome degree, a doubt, whether

whether theſe marine productions are zoophytes, produced by the labour of animals, or whether they are produced on a vegetating principle. It will be difficult to bring this matter to the teſt of modern natural philoſophy, *viz.* experiment: but till ſuch can be made, opinions muſt be various, though the majority, and apparently (from MARSIGLI's experiment) the beſt founded, incline to the belief of corals being produced by vegetation. Having ſlightly reviewed both ſides of this curious queſtion, and having hazarded my own opinion, which can be of little weight, I come now to the intention of troubling the *Aſiatick* Society with theſe remarks, imperfect as they muſt appear.

The production of iſlands, on the weſt coaſt of *Sumatra*, by the very rapid increaſe of this wonderful plant, is a remarkable effect of the operations of nature, hitherto unrecorded in the annals of natural philoſophy. Mr. DALRYMPLE alone has alleged a fact, to which this account will add the weight of convincing teſtimony. In the year 1784, I was directed to ſurvey the coaſt of the Dutch diſtricts on the weſt ſide of the iſland of *Sumatra*. During the courſe of this ſurvey, I had occaſion to lay down on my charts ſeveral ſhoals, conſiſting of branched coral, ſand, and ſuch heterogeneous matter as they will reſiſt and incorporate with themſelves, when impelled againſt them by the action of the ſeas, winds, tide, or currents. The ſurfaces of theſe ſhoals were at various depths, from one foot to three or more fathoms. They are of a conical form, the baſe, in proportion to the axis, being ſmall. The ſhape gives them, in general, the appearance of trees of that figure, ſuch as the poplar, &c. One of the ſhoals I viſited, to the ſouthweſt of *Pooloo Pinang*, near *Padang*, was at that time covered by two feet and an half of water, and could not be diſtinguiſhed by veſſels paſſing at ſome diſtance, but at ſuch times as the winds produced a ſwell or agitation on it. I paſſed along this part of the coaſt in *February*, 1789, very cloſe to the ſhoal, juſt four years and ſeven months after the period at which the ſurvey had been taken; and was not a little aſtoniſhed to obſerve a ſmall ſandy iſland, about ten yards in diameter, having a few buſhes growing on it, formed on the top of the ſhoal, which lies nearly in thirty-ſeven fathoms of water. I could not miſtake this ſhoal, as there was no other contiguous to it, and as my chart, by which I ſuggeſted the ſafeſt courſe to run in, then lay before me. In *May* and *September*, 1789, I had an opportunity, in going to and returning from *Tappanooly*-harbour (which I had been directed to ſurvey), to be again on ſeveral of the ſhoals included in my chart of the coaſts of the *Dutch*-diſtricts, and, according to my expectations, found the depth of the water on them conſiderably diminiſhed

diminiſhed ſince the ſurvey had been taken. In March, 1790, I was ſent for by a gentlemen at *Fort Marlborough*, whoſe houſe commanded a view of the ſea, to obſerve the water breaking on two ſhoals in the roads. This gentleman had reſided on the coaſt near fifteen years, and frequently in this houſe, without having obſerved theſe ſhoals, which, had they appeared at any former period, muſt have been remarked, their ſituation being clearly and diſtinctly expoſed to the daily and immediate obſervation of the ſettlement. At the diſtance of ſeven miles from *Fort Marlborough*, nearly in a ſouth-weſt direction, there is a ſmall iſland, having a few cocoa-nut trees in it. Thirty miles (or it may be twenty-five) diſtant from this iſland, one of the northern pepper ſettlements is ſituated on a riſing ground. The gentleman reſiding there has informed me, that he has always been able to diſtinguiſh the maſts of veſſels lying at anchor near this iſland, and that he lately twice diſtinctly, in the proper bearing, obſerved the trees of the iſland: but that, afterwards, from hazy weather, or ſome other affection of the atmoſphere, he could not perceive the iſland, or rather the trees on it. Former reſidents of *Laye*, the place of obſervation, have, in vain, when uſing the beſt glaſſes, looked for this iſland, inviſible till lately. Such are the ſtubborn facts which may be adduced in proof, not only of the very rapid growth of coral, but alſo of the formation of iſlands from it, as a neceſſary, and obſerved, conſequence. The growth of coral alone may not produce this effect: other aiding circumſtances may intervene. BOCCONE and MARSIGLI have remarked, that, when coral meets with ſtones, coarſe ſand, or any other ſubſtances, it ſeizes them firmly, and ſpeedily includes them within a ſtrong extenſion of its cloſe ramifications. Theſe collections in ſeas, ſubject to frequent ſtorms and agitations, muſt be conſiderable, and promote, in no ſmall degree, the elevation of iſlands. Earthquakes are very frequently felt on this iſland, and on the contiguous ones. Several ſhocks are ſometimes experienced during the courſe of a month. It is obſervable that this tremendous phenomenon, in its progreſs, undulates the ſpace it moves, or travels, under; and that the concave parts of theſe undulations open into fiſſures when the motion is violent. It is not improbable but that ſuch openings take place under ſhoals, or immediately contiguous to them. In this caſe, to preſerve the equilibrium, it ſeems reaſonable to ſuppoſe that the ſurrounding ſand and ſubſtances will ruſh in, hurried along by the general movement, in a greater quantity, from the degree of momentum impelling them, than what occupied the ſpace of the fiſſure when at reſt. Theſe hiatus take place only on the ſide of the undu-

lation from which the earthquake proceeds; and the ſand on that ſide, now inclining to reſt, after having experienced the ſhock, but ſtill poſſeſſing a tendency to move in the direction of the earthquake, will naturally fall into the hiatus opened for its reception, before the undulation can reverberate into its original poſition. Hence the ſhoal, or iſland, will be in ſome degree raiſed, by an effect ſimilar to that of a lever, though by different means. Theſe iſlands and ſhoals, being further removed than other parts expoſed to the ſhock, from the ſubterraneous or ſubmarine crannies or channels in which the earthquake acts, will, of courſe, reſiſt its action more than parts poſſeſſing leſs incumbent weight. The undulations will, therefore, meet with more reſiſtance, and depoſit a greater quantity of ſand than in ſituations reſiſting leſs. In the formation of iſlands, from coral and ſand, as ſoon as the ſand appears above the ſurface of the water, birds carry roots and various ſeeds attached to them, for the conſtruction of neſts: hence the ſpeedy appearance of buſhes and trees. Inſtead of ſuppoſing with ſome, that the numerous iſlands on this coaſt have been formed by the violent commotions of nature, occaſioned by earthquakes, which ſeparated them from the continent, it is more reaſonable to ſuppoſe their formation on the above principles, and chiefly by coral: more eſpecially, when we conſider that the depth of water between many of theſe iſlands and *Sumatra* is unfathomable. The numerous cluſters of iſlands in the eaſtern ſeas, from 36 to 16 degrees of eaſt longitude, are all ſupported by baſes of coral, and ſurrounded by ſhoals emerging from the ſurface, or puſhing their conical fruſtra into a new element. Experience has aſcertained the formation of iſlands from coral: it is not altogether conjecture to ſuppoſe that various groups of iſlands, in the great eaſtern Archipelago, will, in proceſs of time, become continents, or inſular tracks or ſpaces of land. On the coaſt of *Coromandel*, in the immediate front of *Madras*, expoſed anchorage has produced, and produces annually, lamentable accidents, attended with much public detriment. The poſition of a ſheltering iſland in that ſituation would be an object of national benefit, and private ſafety and advantage. To attempt to effect this, a conſiderable quantity of coral might be tranſported from this coaſt, at no great expence, and ſunk, with ſtones and other ſubſtances, in ſeven, eight, or eleven fathoms of water. In the courſe, probably, of forty or fifty years, an iſland might be formed by the growth of this ſubſtance. This is a long period to look forward to for the benefit of futurity; but from what I have, from my own obſervation, inſerted in this paper, I am convinced of the practicability and ſucceſs of a

ſcheme,

ſcheme, which many will treat as chimerical and viſionary, while others, more thinking, will ſee the utility of the deſign and probability of ſucceſs; but will be deterred by the difficulty and tedioufneſs which would attend the execution.

Remark by the President.

It ſeems at length to be ſettled among naturaliſts, that corals and corallines are the cretaceous habitations of animals, and one of the links in the great chain of nature. The idea of making iſlands for the protection of ſhips at anchor, is very ſublime; but it might be feared, that very dangerous reefs of coral would be formed, before an iſle could appear above the water: an artificial embankment of coral might, perhaps, on ſome coaſts, be a powerful barrier againſt an encroachment of the ſea.

ON THE COPPER OF SUMATRA.

I have the ſatisfaction of laying before the *Aſiatick* Society a ſpecimen of copper-ore, the production of the iſland of *Sumatra*. It is found on and in the hills of *Mucchy*, near the ſea, between *Annalaboo* and *Sooſſoo*, to the north of our extreme *Engliſh* ſettlement of *Tappanooly*. The ſoil, which generates the ore, is a mixed loam, conſiſting of clay, ſmall ſtones, and red ſand, founded on an underſoil of ſoft rock, interſected with veins of this uſeful ſubſtance. The ſpace affording the ore is conſiderable; extending above a degree in length, and further eaſt, or into the country, than has yet been aſcertained. A conſiderable quantity of ore is annually collected on the ſurface of the hills, to which the indolence or ignorance of the inhabitants, at preſent, confines their ſearch. Its being found on the ſurface, may probably be aſcribed to the efforts of earthquakes, which are very prevalent on this coaſt, and over the iſland in general. The natives, from inexperience, are incapable of conducting a mine, and purſuing a metallic vein. They are content with excavating the ore, till their labour is interrupted by the flowing of the water, which ſoon takes place in a country ſubject to heavy rains throughout the year. As many of theſe veins widen as far as they have yet been traced, it is more than probable, that theſe hills contain inexhauſtible mines of this metal. The ore, by repeated ſmeltings, and other operations to free it from its ſulphur, has been reduced to a metal, and then found to include a conſiderable proportion of gold. As no part of the

the world contains a greater quantity of this latter metal than *Sumatra*, in proportion to the area it occupies on the globe, it is probable that the diſcovery of gold mines would attend the eſtabliſhment of copper ones in the hills of *Annalaboo*. This is ſo much the more probable, as metalline ſtones of various kinds, and which the *Malays* regard as ſure indications of a ſoil affording gold, are found on theſe hills; independently of the conſideration, that gold-duſt is collected in the immediate neighbourhood, and in the interior country, contiguous to the hills yielding the copper-ore. It is ſingular, that the ſame method of rough ſmelting, which is practiſed at *Goſlaw* in *Germany*, ſhould be in uſe among the uncivilized inhabitants of *Sumatra*. The *Sumatran* method poſſeſſes more ingenuity, and is, at the ſame time, more ſimple. An undemonſtrated knowledge of the plaineſt and moſt obvious principles of ſcience is congenial to the moſt rude as well as to the moſt civilized conceptions, and the advantages, which the talents of *born genius* have conferred on *Europe*, are, by no means, a concluſive proof of the inferiority of intellect, which the fortunate inhabitants of *Europe* liberally beſtow on their leſs enlightened brethren of the *Eaſt* and *Weſt*. That "time and chance happen unto all things under the "ſun," is a truth that amounts to a voluminous diſquiſition on this ſubject. But to return: The ore-gatherers chuſe a level ſpot of hard clay, which they divide into equidiſtant points, by lines interſecting each other, and laid off equally on two ſides of a ſquare. Theſe points, included in the ſquare ſpace, they ſurround with circles, of which the points are the centres. The circles are inverted baſes of cones, excavated to receive the fuſed metal. The ſmelting ſpace is now covered with wood, charcoal, and other combuſtible matters, and the ore is diſtributed among theſe admixtures. The melted ore is received into the formed holes, leaving the ſcoriæ or recrement above. The metal, ſtill requiring many ſmeltings to render it fit for uſe, or perfectly malleable and ductile, is taken out in the form of pointed cakes, and ſold for twenty *Spaniſh* dollars per *pecul*, or five pounds ſterling for 133⅓ pounds avoirdupois weight. The natives are particularly careful in preventing accidents; for, previouſly to fuſing the ore, they heat the ground to a great degree, in order that all the water near the ſurface may be abſorbed, or made to exhale, having experienced, I imagine, that copper, when in a ſtate of fuſion, meeting the ſmalleſt quantity of water, will fly in all directions with a force deſtructive of every vulnerable ſubſtance within the ſphere of its action. I have been informed, that the metal has been eliquated at *Madras* lately, and found to contain very little appearance of any other but of gold. The uſual ſolvents, aqua fortis, aqua regia, and ſpirit of

ſalts,

ſalts, readily diſſolve the *Sumatran* copper. A deep green ſolution is produced, in a very ſhort time, by the action of the weaker acids on the rough ore. The above method of ſmelting will ſeparate all coarſe, mineral, and heterogeneous ſubſtances from the metal, but will ſtill leave it ſtrongly impregnated with its peculiar mineral earth. The detaching of this mineral earth is the moſt difficult and expenſive operation attending the refinement and purification of copper; it being frequently neceſſary to add a proportion of another metal to effect it. This conſideration will, probably, prevent a private company from applying for public permiſſion to work theſe mines; and, therefore, they muſt remain in their preſent ſtate, unleſs the Eaſt-India Company will order the experiment to be made, from the reports and opinions of ſuch as may be qualified to give them on ſo intereſting a ſubject. By ſubmitting this ſhort account to the gentlemen of our Society, whoſe uſeful reſearches will, I hope, produce permanent national benefit, by advancing the knowledge of nature, of ſcience, and of literature, opinions properly weighed, will be diffuſed among the publick, of the advantages that may reſult from an eſtabliſhment for working copper-mines on the weſt coaſt of *Sumatra*.

ON THE PLANT MORINDA, AND ITS USES.

By WILLIAM HUNTER, *Eſq.*

ALTHOUGH the plant, which is the ſubject of this eſſay, be not a new ſpecies, yet, as it is cultivated to a great extent in *Málava*, and forms an important branch of the commerce of that province, I hope a particular deſcription of it, with ſome account of its culture and uſe, will not be unacceptable to the *Aſiatick* Society.

It is the *Morinda* of LINNÆUS: It belongs to the order *Pentandria Monogynia* in his ſyſtem, and is referred by him to the natural order of *Aggregatæ*. Here (though it may ſeem a digreſſion from the ſubject) I cannot help obſerving, that LINNÆUS is not altogether conſiſtent in the diſtinction, which he endeavours to eſtabliſh, between the *aggregatæ* (properly ſo called) and the *compound* flowers. In his *Philoſophia Botanica*, § 116, he defines a *compound* flower to be "that which has a broad "entire receptacle, and ſeſſile florets;" and an *aggregatæ* flower, "that which has "a broad receptacle, and florets ſupported on peduncles." According to theſe definitions,

definitions, the *Morinda* ought to be placed among the *compound* flowers; but in the following ſection, LINNÆUS makes the eſſential character of the *compound* flowers to conſiſt in having all the anthers united: thus reſtricting it to his claſs of *Syngedeſia.* This not only excludes the *Morinda,* but ought perhaps to have, ſtrictly ſpeaking, excluded the *Kuhnia, Iva,* and *Ambroſia:* and even, allowing the approximated anthers in theſe genera to come within the meaning of the definition, it ſeems unaccountable that the *Nauclea* *, which appears ſo well entitled to a place in one of theſe orders, ſhould be excluded from both.

The *Aal* is a tree of a middling ſize; the *root* branchy; the *trunk* columnar, erect, covered with a ſcabrous bark.

Branches from the upper part of the trunk, ſcattered; of the ſtructure of the trunk.

Leaves (ſeminal) oval, obtuſe, entire.

(mature) oppoſite, decuſſated, ovate, pointed at both ends, ſmooth, with very ſhort petioles.

Stipules lanced very ſmall, withering.

Peduncles, from the axils of the leaves, ſolitary, bearing an aggregate flower. *Calyx:* common receptacle roundiſh, collecting the ſeſſile flowers into an irregular head.

Perianth moſt entire, ſcarce obſervable above.

Corol, one-petaled, funnel-form; *Tube* cylindrick; *Border* five-cleft; the *diviſions* lanced.

Stamen: Filaments five, thread-form, ariſing from the tube, and adhering to it through two thirds of their length, a little ſhorter than the tube.

Anthers linear, erect.

Piſtil: Germ beneath †. *Style* thread-form, longer than the ſtamens. *Stigma* two-cleft, thickiſh.

Pericarp: common, irregular, divided on the ſurface into irregular angular ſpaces; compoſed of berries pyramidal, compreſſed on all ſides by the adjacent ones, and concreted with them, lopped, containing, towards the baſe, a fleſhy pulp.

Seeds in each berry four, towards the point oblong, externally convex, internally angular.

The ſpecies here deſcribed is called by LINNÆUS *Morinda arborea pedunculis ſolitariis:* and he gives it the trivial name of *citirfolia*; but the form of the leaves,

* The *Cadam* of the Hindus.

† The Germ is four-celled, and contains the rudiments of four ſeeds.

in

in all the ſpecimens I have ſeen, does not exhibit this ſimilitude, as will appear by the inſpection of the accompanying figure, which was drawn from nature. There are figures of it given by RUMPHIUS (Herb. Amboin. vol. 3. tab. 99.) who calls it *Bancudus latifolia*, and by RHEEDE (Hort. Malab. vol. i. tab. 52.) who calls it *Cáda-pilava*. In *Málava* it is called *Aal*, and in *Oude* it has the name of *Atchy*.

The plant grows beſt in a black rich ſoil, free from ſtones, in ſituations moderately moiſt, not too high, yet ſufficiently elevated to prevent the water of the rains from ſtagnating; and where there is near at hand a ſupply of water for the dry months. It is ſown about the middle or end of *June*, after the rain has begun to fall. The ground requires no manure, it is ploughed twice, or, if tough and hard, three times. The ſeed is ſown, either broad-caſt, or in drills, according to the fancy of the cultivator. The ground is then ploughed over again, and harrowed. In one *beegah* * of ground are ſown, from $1\frac{1}{2}$ to $2\frac{1}{2}$ *muns* † of ſeed. In fifteen or twenty days the young plants ſpring up. The field is then carefully weeded, and the ground ſtirred with an iron inſtrument. This operation is repeated, at proper intervals, during the firſt year; and in the dry months of that year (that is, from *January* till *June*) the ground is three or four times laid under water. After the firſt year, it requires no farther care. In a year the plant grows to the height of one or two feet, according to the quality of the ſoil. In the third year, ſometimes in the ſecond, it bears flowers and fruit. The flowers appear in *June*, and the fruit ripens in *September* or *October*: but the fruit of thoſe young trees is not uſed for ſeed, as it is ſaid not to produce vigorous plants. In the months of *February* and *March* following the third year, the plants are dug up. They dig to the depth of three or four feet; the root, which is the only valuable part, extending ſo far into the ground. The wood of the plant is only uſed for fuel. Sometimes the neceſſities of the huſbandman oblige him to dig the crop in the ſecond, or even at the end of the firſt year; but the root is obtained in much ſmaller quantity, and leſs rich in colouring matter than if it had remained the regular time. The crop is not much affected by the exceſs or defect of the periodical rains. When it is dug at the end of the third year, one *beegah* yields from four to ſix *maunies* ‡ of the root in a wet ſtate. Theſe are ſpread on cloths, and dried in the ſun, for three or four days; at

* A meaſure of one hundred cubits ſquare.

† The *mun* of this country is ſixteen *ſeers*, of eighty rupees weight each.

‡ The *mauny* contains twelve *muns* of this country's weight.

the

the end of which time there remains of dried root, one third or one fourth part of the original weight.

As the colouring matter reſides chiefly in the bark of the root, the ſmall twigs, which contain little wood, bear a higher price than the larger pieces. Therefore the roots, when dug up, are ſeparated into three kinds, coarſe, medium, and fine. The coarſe ſells for one rupee per *mun*, the medium two or three rupees, and the fine four rupees per *mun*, or four ſeers for a rupee.

In particular fields they leave trees for ſeed at the diſtance of four, five, or ſix cubits. In ſix years they yield fertile and vigorous ſeeds. The trees, when of that age, are about ſix inches in diameter, and twelve feet high (branches included); but they continue fruitful for many years, and are ſaid to grow to a ſize not much inferior to that of a *Mango*-tree. When the fruit is ripe, it is gathered, laid in heaps on the ground, and covered up with ſtraw, or other rubbiſh, for fifteen or twenty days, in which time the pulp rots, and is conſumed. It is then put into a baſket, and waſhed, by repeated effuſions of water, to ſeparate the ſeeds, and free them from the remains of the pulpy matter. The huſbandman, who cultivates this plant, generally takes care to have on his ground a ſufficient number of trees for ſeed. If he is unprovided with thoſe, he may purchaſe the ſeed, immediately after it is prepared, for four or five rupees the *mun*; but if he neglects to purchaſe till the ſeaſon of ſowing arrives, he may be obliged to pay at the rate of two ſeers per rupee.

In the ground on which *Aal* has grown, they ſow wheat, or other grain, for five or ſix years; and, it is obſerved, that the grain ſown on this ground thrives remarkably: and while the trees left for ſeed continue ſmall, grain of any kind may be ſown in their interſtices; but *Aal* would not thrive there.

The expence to the cultivator varies conſiderably in different villages. In one, where the plant is cultivated to conſiderable extent *, the pateil, or zemindar, gave me the following account of the expence attending the cultivation of one *beegah*:

To the Collector of the Diſtrict	Rs	10	
To the Pateil, - - - -		1	
To Writers, &c. Servants of the Pateil,		0	10
To digging up the root † - - -		15	
Total,		26	10

* *Khelána*, 7½ miles from *Oujein*.

† For digging a ſpace 16 cubits long, and 3½ cubits broad, the labourers are paid 4¼ pice, at fifty to the rupee.

Now

Now ſuppoſing, agreeably to the foregoing account, that a good crop is ſix, and a bad one four, *maunies*; that each *mauny* yields, when dried, $3\frac{1}{2}$ *muns*, and that in this dried root, the coarſe at one rupee, the medium at two, and the fine at four, are in equal quantities; then, the value of the good crop will be forty-nine rupees, and that of the bad one 32, 10, 8. The firſt of theſe leaves Rupees 22, 6, the other Rs. 6, 0, 8, from each *beegah*. The medium, Rupees 14, 3, 4, we may eſtimate as the profit of the huſbandman, out of which he is to maintain himſelf and his cattle for three years. In this account I have not included the expence of feed, as the cultivator is generally ſupplied with it from his own trees. Had he been obliged to purchaſe it, we muſt have added eight rupees to the expence of cultivation: but, as the crop ſuſtains no damage by remaining in the ground, the cultivator can dig it up at his leiſure; and therefore he generally ſaves by his own labour great part of the expence above ſtated for digging.

In another village *, the cultivator has the land on much eaſier terms; only paying three rupees for the crop, or one rupee yearly, to the collector. Therefore, the other expences being ſuppoſed the ſame, the crop only coſts him Rs. 19, 10, beſides his own maintenance and that of his cattle.

Beſides the conſumption of the root in the manufactures of this province, large quantities of it are exported to *Guzerat* and the northern parts of *Hindoſtan*. I have not been able to learn the exact value of this exportation, but have reaſon to believe that it amounts, annually, to ſome lacs of rupees. The dealers, who come from thoſe places (eſpecially *Guzerat*), to purchaſe, advance money to the cultivator, and, when the crop is ready, buy it, either on the ground, or after it is dug up. In the firſt caſe, they dig a ſmall portion of the field, and, according to the quantity it yields, form a judgment on the value of the whole.

The method of dying with this root is as follows: The cloth to be dyed is thoroughly waſhed and ſcoured, with an extemporaneous kind of ſoap-ley, made by mixing the oil of ſeſamum with the foſſil alkali. Then, ſuppoſing the cloth (which is generally of a thin texture) to be twenty-ſix cubits long, and one cubit broad, the quantities of ingredients will be as follows.

Take of large *Her* † in powder, three ounces. Mix it well with four pounds of water. In this the cloth is to be thoroughly wetted, ſo that the abſorption of *Her*

* *Rindwaſa*, about the ſame diſtance from *Oujein* as the former.

† The *Chebule*; *Myrobalani maximæ, oblongæ, anguloſæ*. C. B.

may be as equal as poſſible. It is then to be ſqueezed, and ſpread in the ſun for about forty-eight minutes, to dry, taking care that no drop of water fall upon it. The cloth, when dried, is of a cream-colour. It is kept in this ſtate for four or five days, that the particles of the *Myrobalan* may be more firmly attached.

Then take of powdered alum, two ounces; diſſolve it in ℔ ij of water. Wet the cloth thoroughly and equally in this ſolution. Wring it, and ſtrike it gently on a ſmooth ſtone, then ſpread it, for twenty-four minutes, in the ſun, to dry. When dried, it is of a pea-green colour. When perfectly dry, it is kept for four days, and then waſhed in cold water. To the manner and degree of waſhing, we are told, great attention is to be paid; as an error, either in exceſs or defect, would ſpoil the colour. When waſhed, it is dried in the ſun.

The cloth thus prepared, is ready to receive the colour, which is prepared in the following manner. Put $3\frac{1}{2}$ gallons of water into an uncovered copper veſſel, and ſet it on a gentle fire. When it is ſomething more than lukewarm, put in the cloth, along with the colouring ingredients, which have previouſly been thus prepared. Take of *Aal*, from one to two ſeers, according to its quality, powder it, and rub it with two ounces of oil of *Seſamum* to each ſeer. Add of the flowers of *D,hawry* *, one-eighth of a ſeer to each ſeer of *Aal*; or, inſtead of *D,hawry*, one ounce and a half of *Purwâs* †, in powder.

The cloth and colouring ingredients are continued on the fire, with a gentle heat,

* A ſhrub, which grows wild on the hills, and on the banks of the rivulets, where they are formed of a graſſy ſod. The flowers are of a beautiful red colour, and are gathered both for the uſe of the dyers and of the apothecaries, who give an infuſion of them as a cooling medicine. They loſe their colour in drying, and only yield a ſlight browniſh tincture to water; ſo that the benefit derived from them in dying with *Aal*, ſeems to depend merely on their action as an aſtringent; which is confirmed by the ſubſtitution of *Purwâs*, a ſtrong aſtringent, as an equivalent to *D,hawry*. The natural character of the *D,hawry* is as follows:

CAL. *Perianth* one-leaved, perſiſtent; *Tube*, bellied; *Border*, ſix-cleft; the diviſions lanced, erect.

COR. *Petals* ſix, lanced, acute, erect; a little longer than the calyx, ariſing from the edge of the *tube*, between the diviſions of the calyx.

STAM. *Filaments* twelve (in ſome ten or eleven) awled, erect, longer than the calyx, and ariſing from it. *Anthers* kidney form, incumbent.

PIST. *Germ* oblong, two-furrowed. *Style* awled, aſcending the length of the ſtamina. *Stigma* obtuſe.

PERIC. *Capſule* ovate, acute, two-furrowed, two-celled, four-valved.

SEEDS numerous, very ſmall: receptacle oblong.

LEAVES oppoſite, lanced.

Here the oblong ſhape of the capſule and its two cells agree with the *Lythrum*; the diviſions of the calyx with the *Ginora*. LINNÆUS (Ph. Bot. § 177, 182, 183.) alleges that the calyx is more to be depended on than the Pericarpium in aſcertaining the genera of plants. Therefore, agreeably to theſe aphoriſms, I ſhould be inclined to refer the *D,hawry* to the genus *Ginora*; but it may perhaps be conſidered as a new genus to be placed in the ſyſtem between the *Lythrum* and *Ginora*.

† A kind of gall-nut, containing the exuviæ of a ſmall inſect, found on a ſpecies of the *Mimoſa*. In *Malwa* it is called *Purwâs*, in *Marwar*, *Succour*, and in the country about *Mongheer*, *Purwân*. This being a ſtronger aſtringent, we are told that an exact attention to the proportion of it is more neceſſary than to that of the *D,hawry*.

gradually

gradually increaſed, for about three hours. Towards the end, the water is made to boil ſtrongly. By taking up a little of the water, and examining its colour, as it is dropped in the veſſel, they judge of the ſucceſs of the proceſs. It ought to be of a clay-colour, or a little deeper. If it proves very red, the colour will be ſpoiled; and the remedy is, to add a larger proportion of *D,hawry*. During this proceſs, the cloth is continually moved, by lifting part of it with a ſtick out of a veſſel, beginning at one end and proceeding to the other. It is now taken out, wrung, and dried. After which, being waſhed in river-water, the red colour is complete. No. 1. is a ſpecimen of this colour, which is valued more for its durability than its beauty.

To make a Dark Purple, or Chocolate Colour.

Take of martial vitriol one ounce, diſſolve it in two pounds of water, and clear the ſolution by decantation. Mix, with a quantity of the above-deſcribed colouring decoction, ſufficient to wet the cloth, ſuch a proportion of this martial ſolution as will give the tint required. This is judged of by inſpection, as the cloth will be of the ſame colour with the mixture. The cloth being taken out of the colouring decoction and wrung, is to be dipped into this mixture, and thoroughly wetted, ſo as to abſorb the colour equally and completely. Then, being dyed and waſhed, its appearance reſembles that of the ſpecimens No. 2 and 3; but the tints admit of a great variety, according to the proportions of the martial ſolution. Both theſe colours are very durable, being little affected by waſhing. One of the quarters of *Oujein*, named *Jeſingpoorah*, is inhabited by dyers, who conſume great quantities of this root. Their printed and ſtained cloths, beſides ſupplying the domeſtic conſumption, are exported to *Guzerat*, and other provinces.

ON THE INHABITANTS OF THE HILLS NEAR RA'JAMAHALL.

By Lieutenant THOMAS SHAW.

A SLIGHT knowledge of the language of the natives of the hills, in the diſtricts of *Bhágalpur* and *Rájamahall*, having brought to my obſervation, that their cuſtoms

cuſtoms and manners, as well as their language, differed from thoſe of the inhabitants of the neighbouring plains; I have, for ſome time, endeavoured to acquire a good account of them, from the belief that, notwithſtanding their connexion with, and dependance on our government, they have been little known beyond the limits of the hills. The following deſcription does not contain much more than a bare tranſlation of what was written by the beſt informed mountaineer, whom I have met with: I have ſpared no pains to render it faithful, for there alone it can have any merit. My information has been derived through a *Soubadar* of the *Rangers* (whom the late Mr. CLEVELAND had inſtructed in writing *Nagree)*, as far as relates to the inhabitants of the hills in the three *Tuppahs* of *Mudjeway*, *Ghurry*, and *Munnuâry*. The firſt is to the ſouth-weſt of *Rájamahall*, extending as far as *Sicrigully*; the ſecond is thence in a weſterly direction, as far as *Shawhabad*; and the third lies to the ſouth of *Ghurry*, from whoſe people thoſe on the borders of *Bheerboom*, and ſouth-eaſt of *Rájamahall*, differ in many reſpects. Whatever was material in theſe latter *Tuppahs*, was related by a *Soubadar* from that quarter to the one who can write; and both attended me in tranſlating them. The *Tuppahs* of *Mudbun*, *Pyer*, *Chitoleah*, *Barcope*, *Putſundaw*, *Jumnee*, *Hurnah*, *Par*, *Dumſai*, *Kuneeallah*, and others, have cuſtoms alſo peculiar to themſelves. Theſe I ſhall endeavour to aſcertain.

The following relates immediately to the *Tuppahs* of *Mudgeway*, *Ghurry*, and *Muanuary*, from which may be collected, what ideas the inhabitants have of one Supreme Being, of a future ſtate, and of tranſmigration. It is true they worſhip many gods, but theſe are conſidered inferior to, and the medium of adoration of, one all-powerful and omniſcient Being; whom they call BEDO GOSSAIH, or the Great God. Their opinions on the metempſychoſis, it is probable, have been borrowed from the *Hindus*, though they profeſs no particular veneration for the cow, or any other animal; for they believe it a puniſhment, when God ordains a human ſoul to tranſmigrate into any of the brute creation; and it is alſo a received opinion that for certain crimes in this life, ſouls are condemned to the vegetable world.

The natives of the hills in theſe *Tuppahs*, having no knowledge of letters, or of any character, have a traditional ſtory, brought down from father to ſon (but in what age it was received, is now not known), that the BEDO GOSSAIH made heaven and earth, and all that is therein. To people the latter, ſeven brothers were ſent from heaven: at firſt they remained together; when the eldeſt brother was ſick, the ſix younger collected all manner of eatables, which they agreed to divide,

and

and to ſeparate, to go into different countries; one, a *Hindu*, got fiſh and goats' fleſh in a new diſh, for his ſhare; a ſecond, a *Muſſulman*, was allotted fiſh, fowl, and every ſort of fleſh, except hogs, for his portion, in a new diſh alſo; a third, *Kirwary*, a fourth, *Keerrateer*, got hogs' fleſh, alſo in a new diſh; a fifth, *Kawdeer*, got all ſorts of fleſh, fiſh, and fowl, in a new diſh; a ſixth, who was deſtined for a foreign country, got ſome of every ſort of food, in a new diſh, and after his departure, it was not known, what had become of him, till *Europeans* made their appearance, when, from their manner of living, it was concluded that they were the decendants of the ſixth brother; the ſeventh, *Mullare*, who was the oldeſt, and ſick brother, got ſome of every kind of food, but put them in an old diſh, for which he was conſidered an outcaſt, and ordered to inhabit theſe hills, where finding neither clothes, nor ſubſiſtance, he and his deſcendants neceſſarily became thieves, in which practice they continued, till ſuch time as Mr. CLEVELAND wiſely conciliated their attachment to the *Engliſh* government, by a liberal generoſity and munificence, while he entered their hills unattended, putting the utmoſt confidence in their faith; and made engagements to ſettle on their chiefs an inconſiderable monthly ſum, in conſideration of their good and peaceable behaviour and obedience, to which they have rigidly adhered; and this, it is related, put an end to their predatory incurſions and marauding. The *Kirwary* caſt croſſed the *Ganges* and lived in tents, having no ſettled habitation. The *Hindu* and *Muſſulman* remained in this country. The *Kawdeer* went to the ſouth, and this remained doubtful, till a party of them came to dig a tank for Mr. CLEVELAND. The *Kirrateer* went to the hills north of the *Ganges*. I cannot learn what names the brothers had, nor how they were provided with wives, to increaſe and multiply; the creation of women does not bear any part in this defective account, which proceeds to relate, that GOD the Creator directed certain wombs to be fruitful. His commandments are, that men ſhould give to ſuch as will receive, and that in like manner others would give to them. By labour men muſt live; for this their hands were made; eyes were given to ſee with, the mouth to ſpeak good or bad, as well as to eat ſweet and ſour, and the feet to walk. Abuſe nobody without cauſe; neither kill, nor puniſh, without a crime, or GOD will deſtroy you. Theſe commands being ſent, certain wombs were fruitful. But ſome men forgetting theſe divine ordinances, abuſed, beat, and oppreſſed each other without cauſe; when, the meaſure of their crimes being full, he ſummons them to his preſence; the meſſenger carries ſickneſs and death: On the ſinner's appearing before

before GOD, being charged with forgetting his commandments, he is bound and caſt into pits of maggots, or pits of fire, where he is to remain eternally.

Whoever keeps GOD's commandments, behaves well in all reſpects. He will neither injure, abuſe, beat, nor kill, any perſon, nor ſeize their effects, nor plunder them, nor waſte their grain, nor their money, nor their clothes, nor quarrel with any one; but praiſes GOD morning and evening; which laſt, the women alſo do. He will be charitable, clothe and feed the poor, and obſerves the feſtivals in GOD's name, with the proper expenſe of grain, money, and clothes. GOD, for the juſt diſpoſal of the goods he had granted, for keeping his commandments, and praying, ſummons the righteous perſon into his preſence, on his having enjoyed this world long enough. On his appearance, he is aſked how he dealt with men, and how they behaved to him. Having rendered his account, as well of what he beſtowed and received, as of what he ate; that he injured nobody, but praiſed GOD morning and evening; GOD anſwers, "I ſaw that you behaved well, and kept my commandments; I will exalt you; in the mean time remain with me." After a ſhort ſojourn, he is ſent to earth, to be born of woman again, and to be a *Raja*, *Dewan*, or *Cutwall*, with abundance of worldly goods and territory. Should he forget to praiſe GOD in his exaltation, and give not meat to the hungry, but oppreſs the poor, GOD, in his wrath, will deſtroy him, ſnatch him away, and accuſe him of neglecting his commandments, and forgetting to praiſe him. He will then caſt him into a pit of fire, where, ſhould not his puniſhment be eternal, he will not allow him to be born again of woman, but to be regenerated in the ſhape of a dog or a cat.

Whoever offends in the preſence of GOD, is diſmiſſed to this earth, to be born of women, either blind, lame, or in poverty, never to have houſe, clothes, or victuals, nor any thing but what is begged from door to door. Should a perſon poſſeſſed of rank, grain, clothes, land, and every thing he could want, forget GOD's commandments, ſeize and plunder from others; GOD, in his wrath for the abuſe of the good things which he had beſtowed, will make him poor and a beggar, and having decreed, that he ſhall remain a certain time on earth, for his puniſhment, this being fulfilled, death ſnatches him away, and he appears in the preſence of GOD. GOD orders a man to kill another, and he kills him, yet lives happily and content, but no one muſt, from his own will and pleaſure, deſtroy a fellow creature, or GOD will deſtroy him. GOD orders a man to beat another, and he beats him; but whoever puniſhes

puniſhes a fellow-creature, without divine commands, the Supreme Being will direct a third perſon to puniſh the offender. No perſon ſhall abuſe another without GOD's commands; whoever diſobeys, will in like manner be abuſed by a third perſon.

Whoever without GOD's commands injures his neighbour, may expect divine retaliation. Should a man ſeeing his neighbour's property, plunder or ſteal it, the BEDO GOSSAIH, will either order him to be puniſhed, in like manner, or ſome of his family to die. Should you ſee a man lame, mock not at his misfortune, leſt GOD ſhould make you lame, or puniſh you in ſome other manner. Laugh not at a man who has the misfortune to be blind, or GOD will afflict you in like manner, or ſome other way. It has pleaſed Providence that a man ſhould have his back broken; whoever laughs at or mocks him, will be afflicted in like manner; GOD will make him blind, or lame, or poor; therefore mock not the unfortunate. If GOD had made the lame, the blind, the broken backed or poor, to be laughed at, he would have pardoned ſuch as mocked them; but as their defects are puniſhments, thoſe who are perfect ſhould not deride their misfortunes. Thoſe on whom GOD beſtows grain, riches, land and power, ought to be charitable, and to cheriſh the unfortunate; ſhould they, notwithſtanding their wealth, be uncharitable, Providence will puniſh them, by rendering them poor, and reducing them to the neceſſity of working for their bread: When great men are charitable, GOD will protect them.

GOD directs the poor to the rich man's door to beg; ſhould the latter uncharitably refuſe to relieve their wants, Providence will be diſpleaſed at the abuſe of the good things which he had beſtowed, and will render the rich man poor, helpleſs, and deſtroy his family. GOD can exalt the poor man: Such are the diſpenſations and power of Providence. A man robs and kills another, and caſts the body away to conceal the murder from the relations of the deceaſed, who conceive their kinſman to have been killed by a ſnake or a tiger, but GOD cannot be deceived: vengeance will fall on the murderer, or his relations; he, or ſome of them, will fall a ſacrifice to a tiger or a ſnake; divine vengeance will ſurely await him. Whoever kills a tiger without divine orders, will either himſelf, or ſome of his relations, fall a ſacrifice to a tiger.

From ſuch ſuperſtition, the natives of the hills are averſe to killing a tiger, unleſs one of their relations has been carried off by one, when they go out for that purpoſe, and having ſucceeded, their bows and arrows are laid on the body of the animal,

mal, they invoke GOD, and declare that they killed it, to retaliate for the loſs of a relation: Vengeance thus ſatisfied, they vow not to attack a tiger, without the provocation of loſing a kinſman.

GOD ſends a meſſenger to ſummon a perſon to his preſence: ſhould the meſſenger miſtake his object, and carry off another, he is deſired by the Deity to take him away; but as the earthly manſion of this ſoul muſt be decayed, it is deſtined to remain midway between heaven and earth, and never can return to the preſence of GOD. Whoever commits homicide without divine orders, can never appear in the preſence of the Deity; his ſoul is deſtined to remain mid-way between heaven and earth. Whoever is killed by a ſnake, as a puniſhment for ſome concealed crime, can never appear in the preſence of the Deity; his ſoul is doomed to remain midway between heaven and earth; yet GOD will deſtroy the ſnake: but, if it acted by Divine orders, Providence ſpares it. Should a rich man call the poor with promiſes of giving them alms, and not perform them, and ſhould the poor exhort GOD to make him poor too, for his uncharitable deceit, Providence will either puniſh him in this way, or ſome other; but by penance and prayer, he may be pardoned. As a man marries a woman at a great expence, ſhould ſhe be guilty of infidelity, and conceal the ſin ſhe had committed, which is the greateſt aggravation of it, GOD will be incenſed and puniſh her, by making her ſick, lame, or blind. Whoever commits fornication and conceals it, may dread divine vengeance: to avert falling ſick, or being otherwiſe puniſhed for his crime; he muſt avow it, pray to be forgiven, and ſacrifice a goat at *Dewarry Nad*, the ſhrine of their houſehold GOD, the blood of which is to be ſprinkled over the linen, to purify him. If a man caſts a luſtful eye on his neighbour's wife, GOD will puniſh him; for it is forbidden. Whoever takes poiſon and dies, can never go to Heaven: his ſoul will be doomed to wander eternally; he will be convulſed and vomit; with no more than the daily allowance of as much rice as can be put on an *aurä*-leaf (which is ſmaller than the *tamarind* leaf), and as much water. Whoever hangs himſelf, ſhall never appear in the preſence of GOD; his ſoul will have no place aſſigned it, but he will be doomed to wander eternally with a rope about his neck. Whoever drowns himſelf, ſhall never appear in the preſence of GOD; his ſoul ſhall remain mid-way between heaven and earth; and GOD has ordained, that whoever drowns himſelf, ſhall be doomed to work eternally, day and night, without intermiſſion, to make the crooked banks of a river ſtrait, where the ſtream ever undermines, as faſt as the labourers inceſſantly work. Whoever, undirected by the Deity, has the misfortune of being killed

killed by a fall from a tree, his ſoul is received into the kingdom of heaven, but not admitted into the preſence of the Almighty: it is, however, ſerved with ſuch things as are provided for the righteous. Whoever receives favours, and is guilty of the ingratitude of abuſing his benefactor, will not be well treated in other places: GOD will expoſe him to miſery for his ingratitude. Whoever falls in battle, is well received by GOD, and fares ſumptuouſly; for the Deity is pleaſed with his fate. Whoever is loſt travelling by water, is well received in Heaven: the Deity will take him unto himſelf.

The *Demauno*, or *Dewaſſy*, ſeems to be more of an oracle, than a prieſt. Thoſe who wiſh to initiate themſelves, repreſent, that by dreaming they can fortell what will happen; that the BEDO GOSAIH appears to them nightly, and braids their hair, from which it grows remarkably long: they muſt never cut it; as it is believed, if ſuch an act did not prove fatal to them, that, at leaſt, their dreams would no longer be prophetic. This oracle foretells to one perſon, that he ſhall have a plentiful harveſt; to another, that he ſhall become rich; a third is told, that he is to fall ſick; a fourth, that he ſhall die; a fifth, that he ſhall be ſucceſsful in hunting. A family is admoniſhed to ſacrifice and pray at a certain ſhrine, to appeaſe an offended GOD; he prophecies when there will be a ſcarcity, and when it will rain. Thus, his predictions being verified, the people have faith in them; and one, who is ſick, attends him for advice, which is afforded the following morning, when the *Demauno* has dreamt of the caſe, or GOD, having appeared to him in his viſion, informed him what will be the fate of the patient, and what he muſt do to get well. Another informs him, his crops are not ſo good as uſual, and deſires to know which GOD is offended, and what he muſt do to appeaſe him. A ſportſman informs him, that he is not ſo fortunate as uſual, and ſeeks to know what he muſt do to be ſo. Some aſk, at what ſhrine they muſt make their offerings. All who conſult this oracle muſt make a preſent, and return the following day for an anſwer. On the firſt full moon of *January*, after his inſpiration, he ſallies out of his houſe, runs about, and pretends to be frantick: but neither injures or ſpeaks to any one. He approaches the door of his chief, and makes ſigns to have a cock, and a hen's egg, brought to him: the latter he immediately eats, and wringing off the head of the cock, ſucks the reeking blood, and throws away the body; whence he proceeds to unfrequented rivers and jungles, where he remains ſeven, or nine days, and is ſuppoſed to be fed by the Deity, whom he repreſents on his return, and when his reaſon is reſtored, to have treated him ſumptuouſly; that God had

ſometimes ſeated him on a large ſnake, and, at others, made him put his hand into the mouth of a large tiger; but without fear of any danger. On the *Demauno*'s emerging from his retreat, he brings with him a large *plantain*-tree, which he had torn up by the roots, and places it on the roof of his houſe; then returns, and brings in a large *ſeedee*-tree; again, brings in a *muckmun*-tree; and laſtly, a *ſeege*-tree; all of which, to the aſtoniſhment of the people, he, without human aſſiſtance, places, in like manner, on the roof of his houſe. It is to be underſtood, that theſe trees are too large for one man to pluck from their roots and carry; and that the *ſeege*-tree is full of thorns, which cannot be touched with impunity; but, by divine aid, he effects theſe wonders. On the night of his return, he repreſents, that the BEDO GOSSAIH appears to him in a viſion, and deſires him to ſacrifice a pigeon or a cock to him, with prayers. Accordingly, in the morning, having recovered his ſenſes, he takes ſome oil to beſmear the trees he had depoſited on the roof of his houſe, and ſome red paint to make ſtreaks on them; over this he ſcatters ſome undreſſed rice, and laſtly, ſacrifices the pigeon, ſo that the blood may fall on the trees; and, during this ceremony, he prays.

Henceforward he muſt never ſit with or touch any woman but his wife; ſhould any other woman even touch him by accident, it is ſuppoſed his predictions would fail; or, ſhould he marry more than one wife at a time, the people would have no faith in him. Having thus paſſed his noviciate, and obtained the reputation of a good *Demauno*, he is invited by his chief to the buffalo-feſtival, who puts round his neck a red ſilk thread, with five cowries ſtrung on it, and binds a turban on his head, beſeeching GOD that he may have power of reſtoring health to the ſick, exorciſing ſuch as are poſſeſſed of devils, and that all his predictions may prove true. In this manner he is ordained, and officiates at the feſtival. A *Demauno* drinks of the reeking blood of all offerings ſacrificed while he is preſent. He muſt never eat beef, or *dhai*, nor drink milk; for, in doing ſo, his prophecies would fail. There is no fixed number of *Demaunos* for the duty of a village: ſome have ſeveral, while others have none. The *Maungy* of every village ſacrifices a buffalo in either the month of *Maug*, or *Phagun*, annually: he fixes a day, and deſires his vaſſals to attend, each of whom contributes a portion of grain, oil, or ſpirits, for the feſtival: proviſions being collected on the day appointed, the *Maungy* directs his followers what to do. Some cook, others go and cut a large branch of the *muckmun* (or *ficwa)* tree, which is brought, and planted before the *Maungy*'s door, one of whoſe family carries out the *kundone* (a ſacred ſtool, with feet) and places it under the

ſhade

ſhade of the *muckmun*-branch, waſhes it, rubs it with oil, ſpots it with *(ſowndra)* red paint, and binds it with a thread of red ſilk; the *Maungy*, having made his *ſalám* to the ſtool, ſits on it; the *Demauno*, or prieſt, ſits on the ground to his left, and prays firſt; after which he gives the *Maungy* a handful of unboiled rice, which he ſcatters cloſe to the *muckmun*-branch, addreſſing himſelf to GOD, to protect him and his dependents, and to be propitious to them, adding a vow to perform and hold this feſtival annually. During the time of praying, the *Maungy*'s drums are beating, that all within hearing, who are poſſeſſed of devils, may run, and pick up the rice to eat: having gathered it all, they are ſeized, bound, and taken to a ſmall [illegible] from the altar, when the buffalo, with ropes on all his legs well ſecured, is hamſtrung by the *Maungy*, to entertain his barbarous followers, in order that they may be diverted by his ſtruggles and exertions, in forcing him to the *muckmun*-branch, where his head is cut off; and the perſons poſſeſſed of devils, who were bound, are ſet at liberty, and immediately ruſh forward to take up the buffalo's blood, and lick it while reeking. When they are ſuppoſed to have enough, they are beſprinkled with water, which renders them completely exorciſed, and they retire to a ſtream to bathe: the adherents come forward with their offerings of rice, oil, and ſpirits, and receive a bleſſing from their chief, who has the buffalo's head dreſſed, and eats it with the prieſts and muſicians: the *kundone* being taken into the houſe, puts an end to the ceremony of the day. The next morning the adherents aſſemble to feaſt on the buffalo and other things which the *Maungy* furniſhes. At the expiration of five days a fowl is immolated, and the blood ſprinkled on the *muckmun*-branch, which is taken up, and with the horns and ſome of the bones of the buffalo, is faſtened on the roof of the *Maungy*'s houſe, where they are left to decay; in ſome places ſtages are erected for theſe ſacred fragments, at the north-eaſt angle of the *Maungy*'s houſe. The chief *Maungy* of a *tuppah* (which is a number of hills that have villages on them), whoſe authority is acknowledged by the *Maungies* of the ſeveral villages in his limits, appoints a time annually to pray, that they may have rain enough for their crops. This feſtival may be held in any month of the year, except *Poos*, in which they neither marry, build a houſe, nor undertake any thing of conſequence, conſidering it an unlucky month. The chief of the *tuppah* having determined on a day, ſends an *arra* to the *Maungy* of each village, deſiring him to attend with twenty or thirty of his men by the day fixed on: when aſſembled they all repair to the place eſtabliſhed without the village, for the ceremony of the *Satane:* having planted a ſmall branch of the *chagulno (bale*-tree), the head of a goat is ſevered with a ſword, that the blood may fall

fall on the leaves of the *chagulno:* the *Satane* is then reſorted to, to aſcertain what chief will be moſt acceptable to the GOD of Rain, to pray to on this occaſion; this being ſettled, a day is named for prayer, upon which all the *Maungies*, with their vaſſals, aſſemble at their chief's, before whoſe door the *Demauno* and *Maungy*, on whom the *Satane* election has fallen, pray: after which a buffalo is ſacrificed, and the ſame forms obſerved as deſcribed in the buffalo-feſtival: it continues as long as the proviſions which were preſented by the ſeveral *Maungies* laſt. The danger of a ſcarcity is thus ſuppoſed to be averted, and that their crops will flouriſh.

When a *Maungy* has eſtabliſhed a village, ſhould a tiger infeſt it, or the ſmall-pox, or any plague prove fatal to its inhabitants, it is ſuppoſed that RUXEY GOSAY is deſirous of having a ſhrine raiſed. The *Satane* is reſorted to, to confirm the ſuppoſition, and the *Demauno* conſulted. On both agreeing, theſe ſteps are ſufficient to ſtop the ravages of any beaſt of prey, and to avert any further fatality from the ſmall-pox. Thus relieved, the *Maungy* calls the *Demauno* to get *ruxey* (a ſacred black ſtone) for him; in compliance with which the *Demauno* has a viſion, in which the Deity appears to him, and informs him where the god RUXEY is to be found, directs him to the ſpot, and deſires him to raiſe him with his own hands, and to preſent him to the *Maungy* in the morning. The *Demauno* gets a branch of the *ſeedee* (a tree peculiar to the hills); benjamin is burned before the *Maungy*'s door, which he ſmells, and proceeds, followed by ſome men, to the ſpot where RUXEY is to be found; having ſmelt the godhead, he directs the perſons who were in attendance to dig for him; to facilitate their work, water is thrown, to ſoften the earth; and when RUXEY is diſcovered, the *Demauno* takes him up, and carries him to the *Maungy*, who immediately ſets out, with his divine preſent, in ſearch of a large tree, about half a mile, or leſs, from the village, under the ſhade of which he places it, and encloſes it by a fence of ſtones, and a hedge of *ſeege:* a fowl and a goat are ſacrificed to the god, whom the *Maungy*, or ſome other acceptable perſon (and it is the object of the *Satane* to find out who is moſt virtuous and moſt worthy to addreſs the god), worſhips and retires.

At any other time when this god is worſhipped, a fowl and goat are ſacrificed; and the *Maungy*, or perſon who prays, is attended by two drummers and an old man, who has no wife, and, from age, has no connexion with women, to partake of the offerings with the preacher; of which others, who have forſworn all connexion with women and drinking intoxicating liquors, may ſhare. Whoever violates this vow by drinking or cohabiting with women, it is believed will become fooliſh; yet he may recover his reaſon by aſking pardon of the god, and by offering a fowl and goat,

goat, with prayer in ſacrifice at the ſhrine; but he can never be a *Hook Moko*, or an elect eater, again.

Idle men and women muſt not approach or profane the place where RUXEY is depoſited, by ſpitting towards him, or by doing any uncleanly act near it: ſhould any perſon, through forgetfulneſs, or ignorance, be guilty of any ſuch acts, by ſpitting, he will get a ſore mouth; and other more offenſive tranſgreſſions are productive of a ſtrangury, or flux, reſpectively; and theſe diſeaſes are often conſidered as the effects of ſome heedleſs tranſgreſſion of the above nature, which is diſcovered by the *Satane*, or ſuch-like proof: their remedy is to give a fowl to the *Maungy*, who makes an offering of it to the god, who is thus appeaſed. If the patient recovers, well; if not, the friends go to a neighbouring village, to find out, by the *Satane*, the cauſe of their relation's illneſs: if he is not thus relieved, they go to a ſecond; and, on failing, they conſider it as an affliction by the diſpenſation of the Supreme Being, who will either ſpare, ſhorten, or prolong the life of the offending patient, according to his will.

The *Chitaria*-feſtival is held but once in three years. The celebration of it ſo ſeldom is, probably, from its being very expenſive to the *Maungy*, who bears the charge. It is not every village that has a *Chalnad*, though he is conſidered as the GOD that preſides over the welfare of villages; but, like RUXEY NAD, he is not ſuppoſed to be eſſential to their happineſs till the inhabitants are haraſſed by ſome plague or peſtilence; when the *Demauno*, on being conſulted, informs the *Maungy* that this Deity is deſirous of having a *Nad* raiſed; that effecting this, and worſhipping him, will put an end to their misfortunes. The *Demauno* then dreams of the the place where this ſhrine is to be found, in the ſhape of a black ſtone; he proceeds in the morning to diſcover it, obſerving the ſame forms as are deſcribed in obtaining RUXEY NAD; when found, the ſtone is placed under the ſhade of a *muckmun*-tree contiguous to the village, and undergoes no alteration in its form from the chiſſel.

Among the preparations for the *Chitaria*-feſtival, the *Maungy* muſt provide a cow, and a piece of red ſilk, previous to the day fixed for prayer. The *Satane*, as uſual, is performed, to find out what two of the *Maungy*'s vaſſals will be moſt acceptable to the god-head to pray. This point being ſettled, and every thing ready, a day is fixed; on the eve of this holiday, the piece of ſilk is cut in two, and one part given to one of the wives of each of the preachers, with whom their huſbands have not cohabited for ten or fifteen days previouſly. The *Demauno*, *Maungy*, *Cutwal*,

Cutwal, *Phojedar*, *Jemmadars*, and *Bundareens*, having been invited into one of the preachers' houſes, the *Demauno* gives water to two *Kalewars*, one *Dolewar*, one *Mangeera*, and one *Jelaum*, to waſh their hands; and theſe muſicians are taken into the houſe: a feaſt is ſerved, of which all preſent partake, as ſoon as the chiefs have thrown a little of each diſh away, in the name of CHALNAD. I muſt here digreſs, to obſerve, that it is a cuſtom through all the hills, to throw a little of their meat away at every meal, previous to their eating; and the ſame rule is obſerved in drinking, the intention of which is to avert any bad conſequence from any devil or evil ſpirit having defiled it. The *Bandareens*, whoſe particular province it is, at all feſtivals, to ſerve out the *toddy*, or ſpirits, perform that office; and the chiefs, having ſpilled a little alſo in the name of CHALNAD for a libation, the party drink and ſing all night, in praiſe of CHITARIAH GOSAIH, invoking his protection, the muſicians, or rather drummers, beating at the ſame time; ſhould any perſon ſing a different ſong, he is fined a fowl, which is ſacrificed, and the blood ſprinkled over the whole party; during the courſe of the night, they patrole the village five times, leading a cow with them; in the morning the *Demauno*, the two preachers and drummers, proceed to *Chalnad* with the cow; having finiſhed their prayers, the cow is ſacrificed by one of the preachers, in ſuch a manner that the blood may fall on the ſhrine; a feaſt is immediately made of the fleſh, and all the men who accompanied them from the village, except ſuch as may be diſqualified from domeſtic cauſes, partake of it. On their return to the village, they ſend notice of their approach, that the two wives of the preachers, between whom the piece of ſilk was divided, may take off their clothes and ornaments, and tie the ſilk round their middles, covering them from their waiſts to their knees; their hair is faſtened in a knot on the crown of their heads, and every part of their body, which is expoſed, is ſpotted with a mixture made of turmeric powdered, and the heart, or white part of *Indian* corn, which is finely ground for that purpoſe: part of this is alſo ſent to the preachers, that they may be ſpotted in the ſame manner, and with it the halves of four mats thus prepared. The two women (the whole village, men, women, and children, being aſſembled to ſee the proceſſion) ſet out, one following the other, and taking care not to advance the foot which is up beyond the toe of that on the ground, to meet the preachers, who obſerve the ſame pace as their wives; and the mats, as the parties paſs over them, are always taken up and placed again before; having paſſed each other, the women take place behind the men, and follow them by the ſame ſtep at which they at firſt ſet out, to the houſe of one of

the

the preachers; when arrived, the men taking one ſide, and the women the other, they waſh and change their clothes: here the ceremony ends; and the preachers, with their wives, are invited to a feaſt at the *Maungy*'s.

The above is the only feſtival where women can aſſiſt, or bear any part, as a woman never prays in public on theſe hills: it has before been ſaid, that they are to recommend themſelves to the protection of the Supreme Being, morning and night. During the time of the above feſtival, the compliment of a *ſalam* is not paid to any perſon.

POW GOSAIH, or the God of the Road, or Highway, is the firſt worſhip young men perform, though it is not undertaken till ſome accident has induced the perſon to conſult the *Cherreen*, or *Satane*, whether his praying and making an offering will be acceptable. This trial is perhaps of itſelf ſufficient to confirm the opinion, that POW GOSAIH is offended; therefore the young ſuppliant vows to worſhip him. On the day of thankſgiving, on which the new *Takalloo* is firſt eaten of, or on the day appointed for the new *Koſarane*-harveſt, he proceeds to a high road, and cleans and waſhes a ſmall ſpace, under the ſhade of a young *bale*-tree: in the centre of this he plants a branch of the *muckmun*-tree; round it he makes marks and ſpots with red paint and with a handful of rice, which he lays cloſe to the branch, placing a hen's egg on it, on which three ſtreaks of red paint were drawn, he invokes the Supreme Being, and God of the Road, to protect him while travelling, and ſacrifices a cock, the blood of which is thrown on the *muckmun*-branch: the offering, being dreſſed with rice, is eaten by the ſuppliant and ſuch as may have attended him: the ceremony ends by breaking the hen's egg, and is never repeated by him unleſs he ſhould again meet with ſome accident while travelling, on which the *Cherreen*, or *Satane*, is reſorted to, for a confirmation of the apprehenſion, that it was cauſed by POW GOSAIH's reſentment, and his deſire of being worſhipped.

DEWARY GOSAIH, or the god, who is ſuppoſed to preſide over the welfare of families, is the ſecond worſhip that men perform; there is no fixed time for it: he who diſcovers by the *Cherreen*, or *Satane*, that the welfare of himſelf and family depends on his holding this feſtival, diſtils ſpirits, purchaſes a hog, rice, red-paint, and oil; and, having fixed on a day, invites his *Maungy* and friends on the day appointed: a ſmall ſpace before the threſhold is bruſhed and waſhed, and a branch of the *muckmun* planted in it: on this ſome red paint is put, as well as marks made round it. The *Maungy* and his officers are taken into the ſuppliant's houſe, when pots of ſpirits and proviſions are given to the former, as well as meat and drink to

all

all the company: after a ſhort repaſt, the ſuppliant, with a hen's egg and a handful of rice, approaches the *muckmun*-branch, cloſe to which the former is depoſited on the latter: during this ceremony, he implores the Supreme Being and DEWARY GOSAIH to be propitious to him and his family. The hog is ſacrificed by a relation, as an offering to DEWARY GOSAIH, with profeſſions of again obſerving the feſtival whenever DEWARY GOSAIH may deſire it. A feaſt is made with the oblation, and, at the concluſion, the ſuppliant breaks the egg, and pulls up the *muckmun*-branch, which he places on the roof of his houſe.

KULL GOSAIH, or the CERES of the mountaineers, is worſhipped annually by cultivators, in the ſeaſon of ſowing their fields: the proper time is aſcertained by conſulting the *Demauno*, and confirmed by either the *Cherreen*, or *Satane*, and is attended with more or leſs expence, according to the means of the ſuppliant; if poor, it is deemed ſufficient to make an offering of a cock; thoſe who can afford it purchaſe a cut hog, and a cut goat, diſtil ſpirits, buy rice, red paint, and oil, and invite the *Demauno* to aſſiſt them in praying, as well as their friends, chiefs, and neighbours, to a feaſt. On the day appointed the *Demauno* goes early to aid in diſtilling ſpirits, and in other preparations for the feaſt: the chiefs and others, having entered the ſuppliant's houſe, are preſented with meat, and ſpirituous liquors to drink: the *Demauno* is alſo introduced with two *Kalewars*, and one *Dolewar*: he, and the ſuppliant, and the *Maungy*, facing the middle ſupporter of the houſe, pray for the welfare of the maſter, making a libation, and throwing down ſome meat, in the name of GOOMO GOSAIH, and of KULL GOSAIH: the *Demauno* and ſuppliant burn incenſe, while the *Kalewars* and *Dolewar* beat, and the *Maungy* and chiefs eat and drink: after this, the ſuppliant proceeds, with the *Demauno*, muſicians, and all who may be diſpoſed to join in the proceſſion, to his field, where, at the ſtump of a tree, having cleaned a ſmall ſpace, and planted a branch of the *muckmun*, and prayed with the forms already deſcribed, burning incenſe; the goat and hog are ſacrificed by a relation of the ſuppliant's (who gets a rupee and a turban for this ſacred office) ſo that ſome of the blood may fall on the *muckmun*-branch, and of which the *Demauno* pretends to drink a conſiderable quantity: he gives out that the blood digeſts in his throat, and does not paſs into his ſtomach.

Of each of theſe offerings, the *Maungy* is preſented with a fore-quarter for his family, and of the remainder all, except ſuch whoſe wives are in their ſeparation, partake; at the concluſion, the *Demauno* gives water to the muſicians, and the ſuppliant, to waſh their hands, who return with the latter, and feaſt and drink at his

houſe

houſe as long as any fragment of the proviſions, which had been prepared for the feſtival, remains.

The *Demauno* having deſired any perſon to worſhip GOOMO GOSAIH, and the *Cherreen*, or *Satane*, having confirmed his ordinance, the ſuppliant muſt rear a cut kid, and cut pig, for that expreſs purpoſe, about two years, more or leſs: having acquired property enough to perform his promiſe, for it is attended with conſiderable expence, he ſends invitations to his chief and vaſſals, to thoſe alſo in the neighbourhood, and to his relations; and, to mark the time for the feſtival, a ſtring, with a number of knots equal to the number of days that will intervene, is ſent to each; from theſe ſtrings, to avert miſtakes, one knot is daily cut: in the interval the ſuppliant is employed in diſtilling ſpirits, and collecting materials, ſuch as rice, oil, red paint, &c. when one knot remains, the gueſts aſſemble, and, on the morning of the day appointed, ſome of the ſuppliant's neighbours, or relations, proceed to the jungles to cut three ſmall *muckmun*-trees: before the firſt is hewn, a cock is ſacrificed, that the blood may fall on it, and ſome ſpirits thrown on it, as a libation to GOOMO: as ſoon as the branches and bark are ſtripped off, two men are ſufficient to carry each tree, and lay them without the village, where it is their buſineſs to prevent, men, goats, or fowls, from touching them; and the ſuppliant, informed of their arrival, ſends them drink for their trouble; in the mean time, he takes the chiefs, and their officers, with the two men who had prayed at the *Chittaria*-feſtival, into his houſe, and preſents the *Maungy* with two pots of ſpirits and a hog; the *Demauno*, two *Kalewars*, and a *Dolewar*, alſo go in: at their entrance, the *Demauno* gives water to the muſicians to waſh their hands; he takes a ſmall wicker baſket, containing about a *ſeer* of rice, on which he puts red paint, and places it with two pans near the middle ſupporter. During this the *Kalewars* and *Dolewar* beat, and incenſe is burning; the *Maungy* having made a libation, thrown out ſome meat, and ſacrificed the hog, in the name of their gods, he and the chiefs eat and drink.

The *Demauno*, ſuppliant, and muſicians, repair to where the trees are; whence the trees are brought home, laid lengthwiſe, eaſt and weſt, cut the proper length, and the ſuppliant and his wife ſprinkle turmerick-water on them; the *Demauno*, mounting aſtride on the one which had been firſt cut, is carried five times round the houſe, when they are taken in, and, ſome earth being dug, are united to the middle ſupporter (which is called *Goomo*), being firſt ſpotted with red paint, and bound with a red ſilk thread. Incenſe is burned; and the *Demauno*, with a hand-

ful of rice, prays, laying the rice down, and placing a hen's egg on it, which had been previouſly thrice ſtreaked with red paint: the ſuppliant, receiving a handful of rice from the *Demauno*, alſo prays, throwing it on the egg, when one of his relations brings up the fat goat, and ſacrifices it ſo that the blood may fall on the *Goomo*. For this ſacred office he gets a rupee and a turban. The *Demauno*, ſuppliant, and muſicians, and all who may be diſpoſed to be of the proceſſion, proceed to a field, where, ſweeping and waſhing near the ſtump of a tree, they plant the branch of a *muckmun*, and round it and on it make ſtreaks of red paint: incenſe is then burned, and with a handful of rice and a hen's egg, the *Demauno* and ſuppliant repeat the prayers and ceremony which had been obſerved in the houſe, when the fat hog and another goat are ſacrificed by a relation. Some of the blood of theſe animals muſt fall on the *muckmun*, and the *Demauno* drinks of it.

A fore quarter of each of the offerings being ſent to the *Maungy*, they feaſt and return: previous to entering the ſuppliant's houſe, the *Demauno* gives him and the muſicians water to waſh their hands. The relations of the ſuppliant attend him, preſent him with ſpirits and a cock each, and anoint him, his wives, and children, with oil: he ſacrifices the cocks, makes a libation, and throws away ſome meat in the name of GOOMO: they feaſt and drink for two or three days, and then repair to their homes. On the fifth day the ceremony concludes, by the ſuppliant's ſacrificing a cock to GOOMO GOSAIH, and another to KULL GOSAIH.

GOOMO GOSAIH is alſo worſhipped as above, with this difference, that the ſuppliant does not eat, drink, or ſmoke in his houſe, or partake of any thing that had been in his houſe, for ſeveral days before the feſtival; nor is he allowed to partake of the offerings: and this prohibition continues for five days after the feſtival, which is called *Oogoſs* GOOMO GOSAIH.

The worſhip of CHUMDAH-GOSAIH is ſo expenſive, that none but chiefs, or men of property, can ever afford it, and theſe not oftener than once in three years; and therefore the votaries to this ſhrine moſt frequently exceed that period for ſo expenſive a ceremony. They firſt conſult the *Demauno*, and have recourſe to the *Cherreen* and *Satane*; both of which muſt agree with what the *Demauno* preſcribes, before this feſtival can be held: when thus ordained, the ſuppliant muſt provide about a dozen hogs, as many goats, about three ſcore ſeers of rice, two of red paint, fifteen of oil; about twelve rupees muſt be expended in ſpirits, and ſome ſcores of cooking pots, diſhes, and cups for drinking, laid in, as well as a few peacocks' tails, a fan, three bamboos, nine ſcore *natâria*-trees, and ſome red ſtones, which are ground

ground for paint, and alſo ſome charcoal. Thus prepared, the ſuppliant ſends ſtrings, with knots numbering the intervening days, with invitations to his relations and neighbouring chiefs. On the day appointed ſome thouſands aſſemble, and are variouſly employed. Some grind the red ſtone for paint, others charcoal to mix with oil, while a great number are occupied in ſtripping the bark off the *natâria*, which is effected in one piece of four cubits long, by bruiſing it; three bamboos are then made ſtraight by oil and fire, and are of the ſame length with the *natâria*-bark; a fat hog, grain, and ſeveral pots of ſpirits, are ſent to the workers. The red ſtone and charcoal being ground, are mixed ſeparately with oil, and a quantity of hogs' blood added to both: the barks of the *natâria* have about a cubit of the lower end of each blackened with the charcoal, another cubit is left of the natural colour, and above it one cubit is painted red; caps of wood are fitted on the bamboos, and necks made in them: on one of theſe, four ſcore and an half of barks are bound with twine dipped in oil; on the ſecond, three ſcore are bound, and on the third, one ſcore and a half; the heads of theſe three are ornamented with a profuſion of peacocks' tail feathers, thus prepared; they are called CHUMDAH GOSAIH, and carried to the ſuppliant's houſe, where for the workmen a hog is dreſſed with grain, that they may be feaſted for their trouble: a hog, two pots of ſpirits, grain, and ſalt, are preſented to every chief, for himſelf and vaſſals, who honours the ſuppliant with his company; as much is alſo given to his own relations, and a like quantity to the relations of his wives, and meat and drink is diſtributed to all aſſembled. The women, who dreſs theſe proviſions, excluſive of their daily hire, have a hog given to them, that they may eat together, as they are not allowed to feaſt with the men.

The *Chumdah*-bamboos having been brought about evening, and placed againſt the ſuppliant's houſe, he and the *Demauno* rub the ends on the ground with oil, and mark them with red paint; when the latter, with a hen's egg and a handful of rice, prays, obſerving the uſual ceremony, that CHUMDAH GOSAIH may be propitious to the ſuppliant, who follows his example, and alſo makes an offering of a cut hog, which he ſacrifices ſo that the blood may fall on the bamboos; the largeſt of which, or one with the greateſt number of barks pendant to it, he preſents to one of his relations; the ſecond in ſize to one of his wife's relations; and the third to any volunteer. The three perſons thus favoured, ſupport the *Chumdahs* by cloth tied round their waiſts, and balance them with their hands, dancing as long as they can: when fatigued, they are relieved indiſcriminately, without any diſtinction; and this

amuſement,

amuſement, with muſick, continues all night. In the morning the *Demauno* and ſuppliant pray at the middle ſupporter of the latter's houſe, with the uſual forms, when a cut goat is brought as an offering, and ſacrificed by a relation: hence they repair to his field, taking with them the *Chumdah*, and again pray near the ſtump of a tree, where a ſmall ſpace is bruſhed and waſhed for the purpoſe, and a branch of the *muckmun* planted, in addition to the egg and rice depoſited there by the *Demauno* and ſuppliant: a ſhrine for KULL GOSAIH is waſhed, rubbed with oil, red paint put on it, and bound with a red ſilk thread, and placed cloſe to the *muckmun*-branch, when a goat and two hogs are ſacrificed by a relation, that the blood may fall or be ſprinkled on the ſhrine *Chumdah* and branch. For this office he gets a rupee and a turban: the offerings being dreſſed, are eaten with grain: the party having feaſted, return, bringing with them the *Chumdahs*, which are carried five times round the ſuppliant's houſe, and then placed againſt eaves, where they remain five days; at the expiration of which, a *ſeer* of *takallone* is ſerved out to every perſon who applies for it, at the ſuppliant's houſe; but four men are ſtationed at each of the four doors, that every perſon who goes out with the *takallone*, may receive a blow with the open hand from each of the four men ſtationed at the door he paſſes out of. At the concluſion of this ceremony the *Chumdah*-bamboos are taken into the houſe, and ſuſpended to the roof; the ſuppliant repairs to the field, and makes an offering of a hog, and prays at the ſhrine of KULL GOSAIH, whence he returns and ſacrifices a goat at the middle ſupporter of his houſe, with prayer: theſe offerings are dreſſed, and, as is cuſtomary, they feaſt on them.

When the *koſarane* (a ſmall grain like what the lowlanders call *collye*), is reaping in *November*, or the beginning of *December*, a feſtival is held as a thankſgiving before the new grain is eaten of. Materials for a feaſt being prepared, a day is fixed by the *Maungy*, who invites the chiefs of the neighbouring villages. On the day appointed, the two men who prayed at the *Chitaria*-feſtival, proceed to *Chainad* to pray, and ſacrifice a goat, which, with ſome *koſarane*, is an offering at the *Nad* to CHITARIAH GOSAIH. On their return to the village, the *Maungy* has his *kondone* brought out, on which he prays and immolates a fowl. During this, the *dungareabar*, or vaſſals, repair to their fields, offer thankſgiving, make an oblation to KULL GOSAIH, and return to their houſes to eat of the new *koſarane*. As ſoon as the inhabitants aſſemble at the *Maungy*'s houſe, the men ſitting on one ſide, and the women on the other, the *Phojedar* preſents a hog, a meaſure of *koſarane*, and a pot of ſpirits, to the *Maungy*, in the name of his vaſſals, by whom theſe had been contributed.

contributed. On receiving them, he bleſſes his vaſſals, and exhorts them to induſtry and good behaviour; after which, making a libation in the names of all their gods, and of their dead, he drinks, and alſo throws a little of the *koſarane* away, repeating the ſame pious exclamations; which ceremony is the commencement of the feſtivity and drinking that laſts for ſeveral days.

On reaping the *takallone (Indian* corn) in *Auguſt* or *September*, there is alſo a feſtival. Each man repairs to his field, with either a hog, goat, or fowl, to ſacrifice to KULL GOSAIH, to whom he prays; and, having feaſted, returns home, where another repaſt is prepared; and on this day it is cuſtomary for every family in the village to diſtribute a little of what they have prepared for their feaſt to every houſe.

Should any perſon eat of new *koſarane* or *takallone* before the feſtival and publick thankſgiving at the reaping of theſe crops, the *Maungy* fines the offenders a cock; which is ſacrificed by the two preachers at the ſhrine of *Chittâriah*.

The mountaineers are repreſented to have in general an amorous diſpoſition; their ſolicitude and attentions, when in love, are ſaid to be unceaſing. If ſeparated but for an hour, the lovers are miſerable; they conceal their meat to preſent to each other privately. The lady dreſſes whatever nice things ſhe can ſecret from her parents, to treat her lover with; and he preſents her with rings and beads, and treats her with toddy. They go to market, and exchange paun and tobacco; and, on their return, ſhould they perceive an acquaintance, they ſeparate, to avoid being ſeen in company; but by aſſignation ſoon meet again. They retire to ſleep together, but ſeldom are guilty of that indiſcretion which is irreparable, though the fine for ſuch imprudent conduct, which the parties are afraid to conceal, is a hog and a goat to the *Maungy*, who ſacrifices them on the ſpot where frailty made them tranſgreſs, and ſprinkle ſome of the blood on them, to waſh out the ſtain from his land, or rather to appeaſe an intenſed deity, who fails not to puniſh ſuch abominations. Thus when a virgin is deflowered with her conſent, the blood of the offering is ſuppoſed to atone for their ſin. Should the couple agree to come together as man and wife, the *Maungy* proclaims it; and they are immediately conſidered to be married, without any further ceremony or expence. The man has the option of taking her for his wife: ſhe however has the privilege of demanding a regular marriage, which implies the uſual preſents, and the time for the wedding is fixed.

Polygamy is allowed. A man may marry as many wives as his circumſtances will admit of; that is, as often as he can defray the expences of the nuptials. When he ſees a girl whom he wiſhes to eſpouſe, he ſends a friend to her parents to aſk her

her in marriage: they refer him to the lady. Should he obtain her conſent, he acquaints the parents, who deſire him to return to the ſuitor, to adviſe him of their acquieſcence, and that he may prepare the uſual preſents of *poonate* (beads), and *tubacane* (a ring for the neck), to preſent to the lady; which being accepted, ſhe is conſidered betrothed to him; and he, as ſoon as he can procure money for the expence of the nuptials, muſt provide a turban for the lady's father, with one rupee; alſo a rupee and a piece of cloth for her mother; and a rupee and a piece of cloth for ſeveral of the neareſt relations. Theſe and the materials for the marriage-feaſt being provided, a day is fixed, on which the bridegroom, with his relations, proceed to the bride's father's houſe, where they are ſeated on cots and mats, and after a repaſt, the bride's father taking his daughter's hand, and giving it to the bridegroom, he publickly admoniſhes him to uſe her well and kindly, and not to murder her; threatening to retaliate; but if ſhe ſhould die a natural death, or by means of the devil, it cannot be helped. On the concluſion of this exhortation, the bridegroom, with the little finger of his right-hand, marks the bride's forehead with red paint, and the ſame little finger being linked with the little finger of the bride's right-hand, he leads her out of the houſe to his own. At the expiration of five days, the bridegroom, with the bride, returns to her father's well ſtocked with proviſions for feaſting, and having paſſed two or three days with their parents, they go home, and the ceremony concludes.

A man dying and leaving widows, his younger brothers, or younger couſins of the firſt and ſecond degrees, or nephews, may receive the widows as wives. If the parties agree on theſe occaſions, the children go with their mother: if the widow prefers returning to her relations, the children under ten years of age go with her, and ſhe is entitled to a rupee and a piece of cloth annually, for bringing them up. When arrived at that period of life, they are ſent to the relation of their father who paid their mother for taking care of them. When a woman has ten children, her eldeſt brother may claim one; the right is acknowledged from cuſtom, though it cannot be enforced. The child thus adopted by an uncle, is treated as, and has every privilege of, his own children. Should this ſon by adoption arrive at manhood, die, and leave property, it is equally divided between the adopter and the father of the deceaſed.

A man deſirous of marrying a widow, deputes a friend to aſk her in marriage. Should ſhe conſent, ſhe refers him to her late huſband's relations, the neareſt of whom, for his acquieſcence, is entitled to two rupees and a turban. The parents

of

of the widow are next conſulted. Should they approve, they are entitled to ſome trifling preſents, on which the father gives his daughter's hand, exhorting the bridegroom, as related in the deſcription of a marriage. The red paint is not uſed on a ſecond marriage: a feaſt concludes the whole.

A man cannot marry a relation, though he may marry his wife's ſiſter, except in the inſtance of younger brothers, couſins, and nephews, receiving one each, or more, of their ſenior kinſman's widows, who are treated and conſidered as wives, though there is no expence or ceremony attending their union.

Should a girl be compelled by her parents to marry a man whom ſhe diſlikes, and ſhould ſhe be unhappy, and leave her huſband, and in deſpair put an end to herſelf, the parents get a court appointed, to inquire how their ſon-in-law behaved to their daughter: if it ſhould appear, that he treated her cruelly, he is conſidered guilty of murder, and fined, but not ſo heavily, as is common for the commutation of blood; if on the contrary it ſhould appear, that he behaved well to her, it is deemed ſuicide.

Should a married woman elope with a man, and the party be purſued, ſeized and brought back, judges are appointed to try the man, who is generally fined one or two ſcore of rupees: the huſband may or may not receive his wife, and the ſeducer has to pay the fine.

A man, convicted of having committed adultery, is fined twenty or thirty rupees; he is alſo obliged to furniſh a hog, the blood of which, being ſprinkled on the adulterer and adultereſs, waſhes away their ſin, and, it is believed, will avert divine vengeance: the ceremony ends with a feaſt, and, the parties thus purified, the huſband and friends are reconciled. The adultereſs in general reveals the ſecret; as a ſuperſtitious idea is entertained, that, if concealed, the inhabitants of the village will be viſited by a plague, or that a tiger or venomous animal will deſtroy them. When any of theſe happens, it is religiouſly believed to proceed from the immorality and evil doings of ſome individual, and as a puniſhment for ſome concealed ſin; to diſcover which they have practices, in which they place implicit faith: one is called *Satane*, and is as follows: A place large enough for a man to ſit in, is bruſhed and waſhed, in the middle of which a ſmall branch of the *bale*-tree is planted, and a perſon ſits oppoſite to it, another ſupplies him with a few grains of rice, on a *bale* leaf, ſome of which he throws on the branch, the remainder he is to eat, the perſon who gave it him repeating, that he is to ſwallow it in the names of all the inhabitants of the village; in which ſhould the ſinner be, it is believed

GOD

God will make him throw up the rice: ſhould this happen, he is next to eat ſome in the names of families, and again in the name of all the individuals who compoſe that on which the *Satane* proof falls. Another is called *Cherreen*, and is thus: A ſtone is ſuſpended to a ſtring, which, it is believed, will be toſſed to and fro, on the name of the village, family, and offender. The third is called *Gobereen*, and is of a more ſerious nature than the two former. A pot with ſome cow-dung, oil, and water, is put on the fire; when boiling, a ring is thrown in; each perſon approaches to take out the ring, calling on God to protect him if innocent, and to burn him if guilty: on this trial, it is believed, the innocent will eſcape unhurt in taking out the ring, and that the guilty perſon will be ſeverely burned, without being able to put his hand into the pot, as the mixture, it is ſaid, will boil up to meet his hand.

When a married man has been detected in committing fornication, his wife or wives may inſiſt on a hog or goat being ſacrificed, to ſprinkle the blood over him: being thus purified, it is believed this ceremony expiates divine vengeance, which would ſooner or later alight on him or ſome of his family, for this ſin.

Witchcraft and ſorcery are moſt firmly believed, and accidents or diſeaſes, which elude their little ſkill in medicine, are attributed to ſome perſon ſuppoſed to be ſkilled in theſe arts, who has bewitched them; when ſuch a conviction is admitted, the *Cherreen* is conſulted, and again the *Satane*, both repeatedly, till ſome perſon be named: to confirm this ideal proof, which is received as infallible, an ordeal is undertaken, and, on the part of ſuch perſon (ſuppoſed to be bewitched) five men are employed, who are qualified, and acquainted with this mode of trial; ſuch as are born immaturely cannot be engaged in it: theſe five proceed to a retired place on the banks of a river, before day-light, taking with them wood of a particular kind, and make a fire to heat an iron: one of theſe is to touch the iron when red hot with his tongue, but is firſt to bathe: while he is performing his ablution, the others heat the iron: when red hot, a little rice is thrown on it, in the name of the perſon accuſed of witchcraft, and Birmah, the God of Fire, exhorted to do juſtice: if it conſumes, he is conſidered guilty; if not, not: the *Tâtoo*, or perſon who touches the iron, keeping one foot in the water, puts the iron to his tongue, and muſt repeat it as often as nine times, if the firſt and ſecond touch does not burn, which however cannot happen: on the *Tâtoo* being burned, the party return before ſun riſe, and, on their approach to their village, the friends of the ſick perſon are called out to ſee the *Tâtoo*'s tongue; the perſon accuſed may object to the trial, and inſiſt on its being

being held over again, that two perſons may go on his part to witneſs it; on this proof, the unfortunate perſon is ſeized and puniſhed, till he or ſhe acknowledges the crime: it muſt be alſo told who inſtructed him, or her, in the practice of this evil art; the *Chouraga*, or warlock, is now brought to the ſick perſon, to exorciſe him from his ſpell: ſhould he recover, the *Chouraga* is compelled to pay one rupee to him, one to the *Maungy* of the village, one to the four perſons who witneſſed the ordeal, and eight annas to *Tâtoo:* on the other hand, ſhould he die, the *Chouraga* muſt either ſuffer death, or redeem his life (at the option of the friends of the deceaſed) at the price eſtabliſhed for the commutation of blood: again the friends of the *Chouraga* may retaliate on the perſon, whom their relation accuſed of having inſtructed him in ſorcery.

It is not uncommon for two neighbours to agree, when their reſpective wives are pregnant, that the offspring, in the event of their being a boy and a girl, ſhall be married to each other: on theſe occaſions, the ceremony may be performed when the parties are about eight or ten years old. Should the father of the girl violate the engagement, and give his daughter to another perſon, the father of the boy will obtain a fine equal to the expence of a marriage, which is rated according to their circumſtances; whereas, ſhould the father of the boy, notwithſtanding his contract, marry his ſon before he has performed his part, the father of the girl is entitled to a fine of a turban and one rupee; after which it may ſtill be performed, or not, as the parties mutually agree.

When a woman is in labour, four or five of her relations and neighbours aſſemble to attend her; amongſt theſe, the moſt experienced does the duty of a midwife; the woman keeps her houſe for five days, and her huſband attends her, during which he muſt not enter any perſon's houſe, or field, nor until he and his wife have waſhed their clothes and bathed: on this day the child is named by the father; but, if he be not preſent, the mother gives a name; however this name may be changed before the child is weaned; after this they go out as uſual; the women who attended her in child-bed are entitled to a feaſt, are anointed with oil, and their foreheads painted red, a piece of cloth is given to the one who performed the office of a midwife, and a little grain or ſome other trifling acknowledgment, to the others for their friendly aſſiſtance.

When a child dies that is not weaned, the father ſends a friend to his *Maungy*, to ſolicit ground to bury the body, which, being complied with, the corpſe is carried to the grave, in a place allotted for public burial, and interred with its head to

the north: for infants of this deſcription, no further ceremony is obſerved; but, when a child dies that has been weaned, at the expiration of five days, the relations and neighbours are invited to a feaſt called *Boge*, which being prepared, the father, or neareſt male relation, takes a little of every thing that may be dreſſed, and proceeds to the road leading to the burying-ground, where he throws them away in the name of GOD and the deceaſed, the intention of which is to avert the like misfortune in future, and returning to his houſe, the company are feaſted, all obſerving the ſame cuſtom of throwing away a little in the name of GOD and the deceaſed, previous to eating. Another entertainment, ſimilar to this, is given at the expiration of a year, and, annually, at the thankſgiving for reaping the *takaloo* and *koſarane*: ſome of each of theſe grains are thrown away in the name of GOD and of the deceaſed.

When a child is ſtill-born, the body is put into an earthen pot by the women who attend, and covered with leaves; the father carries the pot into the jungles, places it near the ſtem of a tree, and covers it with ſome bruſh wood, where he leaves it, and there is no further ceremony.

The corpſe of a perſon dying of the ſmall-pox, or meaſles, is taken with the bedſtead into a jungle about a mile from the village, and placed under the ſhade of a tree, where the body, the bedſtead, and clothes, are covered with leaves and branches, and left: thoſe who attend the funeral, bathe before they return to their homes: at the expiration of a year, the relations, being prepared for a feſtival, proceed out of the village, on the road leading to where the body was placed, with all whom they invite; where one of the kinſmen having prayed, and thrown away a ſmall portion of the feaſt, and made a libation in the name of the deceaſed, the party aſſembled partake of it, and return. The bodies of moſt others, dying a natural death, are buried, and the cauſe aſſigned for diſpoſing of the bodies of thoſe who die of the ſmall-pox as deſcribed above, is a ſuperſtitious idea, that ſuch an act will avert any further fatality; whereas, if buried, it will continue to rage, and carry off every inhabitant of the village, which is reported to have happened formerly.

When a young man, or virgin, who is marriageable, dies, the father, or neareſt relation, ſends a friend to ſolicit four cubits of ground, to bury the deceaſed, from the *Maungy*, who aſks if the relations propoſe putting the bedſtead into the grave with the body, in which caſe a rupee is paid to him for the purchaſe of a hog. No time is loſt in carrying the body to the burying-ground, where a grave of a foot and a half or two feet deep, being dug north and ſouth, the head is placed towards the former point; the body is covered with pieces of green wood laid acroſs it; after this

this ſome long graſs, and then the earth which had been taken out, is thrown over the graſs; to conclude, ſmall ſtones are laid to encompaſs the grave, and a few over the middle of the body. No women or girls are allowed to go to funerals, nor are prayers ſaid: on the return of the party, it is cuſtomary for the whole to waſh their legs and arms previous to entering their houſes.

The hog which the *Maungy* had purchaſed with the rupee, that was paid for permiſſion to depoſit the bedſtead with the corpſe, is ſacrificed by him; the liver being taken out and roaſted, the *Maungy* takes a ſmall bit, and caſting it away with ſome of the blood, in the name of GOD and of the deceaſed, the remainder is divided among ſuch men as may be preſent, who repeat what the *Maungy* had ſaid, throwing a little away before they eat; after this repaſt, the carcaſe is divided; the *Maungy* ſeparating a fore-quarter for his family, ſhares on the remainder in proportion with every inhabitant of the village. At the expiration of five days, the *Boge* is obſerved, and every family in the village, or as many as the relations can entertain, are invited; when the father has performed the ceremony of carrying a little of every thing that is dreſſed, with ſome ſpirits, provided ſolely for the purpoſe of a libation, to the road leading to the burying-ground, and there caſt them away in the name of GOD and of the deceaſed; the company aſſembled, are all ſerved, whether male or female, old or young, on ſeparate leaves, and each, previous to eating, obſerves the ceremony of throwing ſome away, as already related. Another *Boge* is held at the expiration of a year, differing only from the former in the free uſe of liquors: at the annual thankſgiving for the reaping of the *takál* and *koſar*, ſome of each is thrown away in the names of deceaſed kinſmen, for one or more years, according to the degree of propinquity and eſtimation in which each was held; it however ceaſes at any time, that the ſurvivors remove from the village in which their kinſman died.

When a chief of opulence and high rank is dangerouſly ill, he orders his relations, male or female, and vaſſals, to be aſſembled; as ſoon as they attend him, he informs them of his ſituation, and, as they will obſerve he has not long to live, he deſires them not to grieve, but to be comforted, and points out the ſon whom he wills to be his ſucceſſor: here primogeniture has no preference: if he be a ſon he muſt ſucceed*, a daughter cannot; though an idiot, it is to be underſtood his right, and

* In ſome of the *tuppahs*, a ſon may be ſet aſide, and the ſucceſſion may be bequeathed to a brother, as is now the caſe in *Mannecarry*; the preſent chief brother to the late *Maungy*, who left a ſon a minor, ſucceeded by deſire of the deceaſed, and received his brother's widows as wives.

ſome

ſome near kinſman is named by the dying man to be his ſon's guardian: to him he bequeaths his territories and fortune (though certain ſums or parts are to be diſtributed) and deſires them to look to him for protection. On his death a drum is beat to announce it to ſuch as are at a diſtance, that they may attend to ſee the body, which is not removed, before the vaſſals collect together to be witneſſes of the fact; it is then carried without the village, cloſe to which it is interred on the bedſtead, in the ſame manner as related of a young man's or virgin's funeral. A piece of ſilk is ſpread over the grave, and ſtones placed ſo as to prevent the wind blowing it off: a hut is erected to ſhelter it, and, round the whole, a fence of bamboos or ſtones: the mourners, on their return, obſerve the uſual oblation, and are feaſted, but throw away ſome of whatever they have to eat or drink, in the name of GOD and of the deceaſed, previous to taſting it; all who come are thus treated in ſucceſſion for five days, when the firſt *Boge* is kept, when the only difference betwen it and that of a *Dungarria*, or vaſſal, is the greater expence from a concourſe of relations, and adherents aſſembling, and that ſpirits are provided for them: at the feſtivals for reaping the *takâl* and *koſar*, ſome of each is thrown away on the road leading to the grave as already deſcribed. At the expiration of a year, the chief's relations and vaſſals being invited for their ſecond *Boge*, the *Demauno* and the heir pray at his door for the deceaſed, when all aſſembled partake of the feaſt, with the uſual ceremony: at the concluſion of this the fortune and goods of the deceaſed are divided; the heir taking one half, the other is equally divided among the ſons, brothers, and nephews by the brother's ſide. Nephews by ſiſters do not ſhare; the widows may, if the parties agree, go with any of their late huſband's younger brothers, or nephews by the brother's ſide, as wives. If however the parties do not agree to come together, the mother of the heir has the option of remaining with her ſon, or of returning to her relations; the other widows muſt do the latter.

When a married woman dies, the widower obſerves the uſual *Boge* at the two ſtated periods: he is not allowed to marry before the performance of the ſecond, or at the expiration of a year; and it is cuſtomary to preſent the neareſt kinſman of his deceaſed wife with one rupee and a turban, after which he may eſpouſe as many wives as he pleaſes, or has fortune to maintain.

The body of a perſon who dies of a dropſy *(Narat)*, is carried and thrown into a river; if buried, it is apprehended the ſame diſorder would return, infect and carry off the other inhabitants. The funeral party having caſt the body into the water, proceed to another part of the river to bathe, and there, having brought a

fowl

fowl and ſome *takâl*, or rice, ſome of each is thrown into the water, in the name of GOD and of the deceaſed, by all who are preſent, before they eat. This is the only *Boge* which is obſerved for perſons dying of a dropſy, though, at the thankſgiving, for reaping the *Takalloo* or *Koſar*, ſome of each is thrown away in their names.

When a perſon has been killed by a tiger, the body, or any part of it that is found, is covered with the branches of trees. On the fifth day the relations of the deceaſed, with a large party, proceed to the place where the remains of their kinſman lay, taking with them a new earthen veſſel, a goat, and ten or fifteen ſeers of *Takâl*, or rice. Being arrived at the ſpot, one of the neareſt relations prays for the deceaſed, in which he is accompanied by the *Demauno*; at the end of their prayers, the former ſcatters ſome grains of rice, and cuts off the head of the goat, naming GOD and the deceaſed: the moment he ſevers the head, he ruſhes into the midſt of the party, who ſurround him; the *Demauno* at the ſame time ſeizes the head of the goat, ſucks the reeking blood, and is ſuppoſed to become frantic: he caſts the head from him and ſprings after it, endeavouring to imitate the tiger, and making a hideous noiſe as like that beaſt as he can; he looks about for the preacher, whom it is the buſineſs of the party to conceal, and prevent his touching; ſhould he in his exertions accompliſh this, a ſuperſtitious opinion is entertained that the poor preacher will infallibly fall a ſacrifice to a tiger: when the *Demauno* is well wearied by his pranks, the head of the goat is put under ground in the earthen veſſel; this ſpeedily reſtores his reaſon, and the preacher comes out in ſafety: the party thence retire to a ſmall diſtance, have a feaſt and return to their homes: at the expiration of a year, the ſecond *Boge* is held for the deceaſed, in the ſame manner as for any other relation, and the ſame attention is paid to his memory, on reaping the *Takalloo* and *Koſar*.

When any perſon dies of the *Moogdo*, or *Kory*, a diſeaſe in which the extremities decay and drop off, the body is buried with the uſual ceremony, and the *Boge* is twice obſerved as uſual, at which every ſort of fleſh, except goats', may be eaten; fiſh is alſo forbidden: in that diſeaſe, goats' fleſh and fiſh are not allowed to the patient, which is the cauſe of their being forbidden at the *Boge*.

Such as die of an epilepſy, are buried with the uſual ceremonies; at their *Boge*, hogs' fleſh is forbidden, becauſe thoſe who are ſubject to the epilepſy, are not allowed to eat it.

Perſons

Perſons who are killed, and ſuicides, are buried with the uſual ceremony above recited.

When a *Demauno* dies, his body is carried into the jungles and placed under the ſhade of a tree, where it is covered with leaves and branches, and left on the bedſtead on which he died; the objection to interring his remains is a ſuperſtitious idea, that he becomes a devil, and that, if buried, he would return and deſtroy the inhabitants of the village; whereas, by placing the body under a tree, he is thus compelled to play the devil in ſome other: the uſual *Boge* ceremonies are obſerved, but cows' fleſh forbidden to be eaten at them: ſhould a *Demauno* eat of it, GOD in his wrath would cauſe all his functions to fail in their effect.

It ſometimes happens, that very old men, when they are very dangerouſly ill, deſire their deſcendants and relations to be aſſembled, to whom they give directions about the diſpoſal of their body, that is, if they wiſh not to be buried, ſome direct their remains to be placed under the ſhade of a tree, while others order them to be thrown into a river; their will in this reſpect is ſtrictly attended to, and the two *Boge* ceremonies are obſerved.

Before the chiefs of the hills put themſelves under the protection of the *Engliſh* government, wrongs and injuries committed by the inhabitants of one village on that of another, were in general decided by the ſword; but diſputes and differences, whether with regard to property or otherwiſe, between inhabitants of the ſame town, were always ſettled by the *Maungy* and his officers; the firſt of them in rank is the *Cutwal*, who is the chief's deputy, next the *Phojedar*, and laſtly the *Jemmadars*, who have a certain number of men under their authority, to inſpect the conduct of the inhabitants, and report it to the *Phojedar*; to theſe, old and experienced men were added, and uſually called in to aſſiſt, when the ſubject of litigation was of importance; at preſent, none but trifling diſputes are ſettled by thoſe officers: for murder, and all capital crimes, the delinquents are brought to *Bhágalpore* or *Rajámchall*, to be tried by an aſſembly of the chiefs, agreeably to the engagements entered into by Mr. CLEVELAND with the head *Maungies*. Though the *Maungies* of all the villages alſo aſſemble on theſe occaſions, none but the *Sirdar Maungies*, or chiefs of *Tuppahs*, and their *Naibs*, or deputies, ſit in judgment: on paſſing ſentence, it is cuſtomary for them to aſk the inferior *Maungies*, if the decree be not juſt; ſhould theſe queſtion it, another examination takes place, when the deciſion may be the ſame or amended.

I have been preſent at ſeveral of theſe trials: the forms obſerved, were firſt to

ſwear

ſwear in the judges according to their faith; this being peculiar, their various ways of taking an oath, may not be thought unworthy of deſcription. The hill word *Deebeen* is an oath; there is no particular officer for adminiſtering oaths; any perſon may do it: the form in general uſe at theſe trials, is, for a mountaineer to put a little ſalt on the blade of a *Tulwar* or ſcimitar, when he ſays, "If you decide contrary to your judgment and falſly, may this ſalt be your death:" the perſon ſwearing having repeated this imprecation and applied it to himſelf, the part of the blade where the ſalt is, is held above his mouth, which he opens, and it is waſhed off into his mouth with ſome water, that he may ſwallow it. Thoſe who, from indiſpoſition or infirmity, do not like to ſwallow the ſalt, repeat the oath, putting their hand on two arrows fixed tranſverſely in the ground, at about a cubit's diſtance, with ſome ſalt between them. On ſome occaſions a man ſwearing repeats the oath, with his hand on a ſword, while others repeat it, laying hold of any perſon's hand; and all theſe forms are conſidered equally binding. Next, the commitment and charge are read and explained by the collector's officer, in his, the collector's, preſence; then the delinquent muſt ſtate his defence or confeſs his crime, ſitting on his hams; after which the *Maungy* and *Phojedar* of the village, where it was committed, declare what they know of it: here the criminal is apparently his own accuſer, by never deviating from truth; the vice of lying being conſidered an aggravation of any crime; but I have known the accuſed refuſe to ſpeak; (for lying has not obtained much among theſe highlanders). A man convicted of falſehood, or who violates a promiſe, is called *paſſiary*, the meaning of which is, a perſon to whom no credit is due, though he ſhould even ſpeak truth, and whoſe profeſſions or promiſes are not to be depended on: ſuch a perſon is not admitted on any arbitration, or on any committee to ſettle trivial differences.

Formerly when a man of one village had a claim upon an inhabitant of another, it was not uncommon, if the latter denied it, and refuſed to have the matter brought to trial, for the complainant to apply to the chief of his village, to unite with the heads of one or two others, to whom preſents were made in proportion to the nature of the diſpute, to form a junction with all their vaſſals, to plunder the village where juſtice was denied, and to carry off the offender: the diviſion of the booty was according to the rates allowed the *Maungies*, their officers, and vaſſals; in ſuch troubleſome times much was not taken, as all property, not of immediate uſe for domeſtic purpoſes, was uſually concealed; the chiefs could therefore only have the firſt choice of the utenſils and apparel, which fell into their hands. The relations

and

and chief of the village, from which the captive was taken, after ſome time were wont to ſend a preſent to the complainant, acknowledging the demand, and promiſing to abide by the award, which arbitrators ſhould give, on his being releaſed: theſe conditions were complied with, the priſoner was enlarged, and he and his relations had to make good the loſs ſuſtained by the inhabitants of the plundered village, as well as to pay the coſt of the arbitration.

It ſometimes happened on ſuch occaſions as the above, that the inhabitants of the village, intended to be plundered, got intelligence of the deſign, and the cauſe of it; on which it was uſual for the *Maungy* to call on his vaſſal, to anſwer to the accuſation: if he acknowledged it, an ambaſſador was diſpatched to the complainant deſiring him to deſiſt from his intention, and to name arbitrators that juſtice might be done; on the other hand, if the charge was denied and the accuſed exhorted his chief to ſtand on the defenſive, with an aſſurance that he would either prove his innocence, after the invaſion, or make good the loſs ſuſtained on both ſides, the vaſſals were aſſembled and ſtationed to guard every avenue leading to the village: night attacks were moſt common; but theſe precautions were in general ſufficient to induce the aſſailants to defer a ſcheme, which was merely to plunder, and, as long as the defendants were alert, nothing was attempted; the invaders therefore kept in their neighbourhood, and, when they were haraſſed by watching, the party advanced, and a man was ſent forward to ſcatter a ſoporific duſt to windward of the village, which, it was believed, would put every inhabitant in it to ſleep in leſs than an hour after dark: in this perſuaſion they ruſhed on to plunder, and, carrying off all that was valuable, retreated; ſoon after which a deputation was ſent from the deſpoiled village, deſiring an arbitration to be appointed, to try whether the accuſation was juſt, which was alleged againſt the inhabitant of it; if proved, he was bound to make good the loſs ſuſtained, as well as to commute the lives that might have been loſt on both ſides; on the other hand, if acquitted, all this fell on the accuſers.

When a man by accident killed one of his brother ſportſmen in hunting, it was cuſtomary for the party to carry the body to the village, where the relations of the deceaſed, having declared the party had no right to ſlay their kinſman, ſet out and implored the aſſiſtance of a neighbouring *Maungy* with his adherents to obtain juſtice: having ſucceeded, they returned in force to plunder the homicide's houſes, and took eatables from every houſe in the village: at the concluſion of this violence, the ſerdars of the village aſſembled to ſit in judgment on the part of the hunters,

whilſt

whilſt thoſe of the aſſailants met them on the part of the kinſmen of the deceaſed: the ſentences on ſuch occaſions were ſeldom leſs than ten or twelve ſcores of rupees, as a commutation for the blood of the manſlayer, two-thirds of which ranſom he had to pay, and the remainder was recovered from the party of hunters: when the above fine was realized, another complaint was made by the relations of the deceaſed to the *Maungy* of the village, to which he belonged, claiming ſome conſideration for the children which he might have begotten had he lived; judges being appointed to examine the ſecond demand, the fine was about two or three ſcores of rupees, from the homicide.

When a woman had poiſoned her huſband, and confeſſed the fact, judges were appointed to ſettle a juſt retribution; ten or twelve ſcores of rupees were commonly adjudged, and the ſum was recovered from the woman and her relations, to whom ſhe was returned.

A perſon convicted of ſtealing cloth, was not fined more than five or ſix rupees, and a turban; yet the thief, by praying for an abatement of this, was in general let off, on paying one rupee, and producing one hog and a turban.

When an orphan, who had no relations or property, was convicted of ſtealing money, grain or cloth, he was compelled to reſtore the ſtolen goods, and flogged and diſcharged: judges were not appointed for ſuch a trial, as the accuſed was ſuppoſed neither to have property, nor friends, to pay the fine for him.

When grain had been ſtolen, and the thief unknown, the *Cherreen* was firſt reſorted to: whether this was ſucceſsful or not, the *Satane* was next tried to confirm the diſcovery, which might have been made by the *Cherreen*, or to find the thief by it if the *Cherreen* had been unſucceſsful. In the event of both failing, or on their being firmly denied by the accuſed, he was compelled to attempt the *Gobereen*, which was deemed unerring: on ſuch ſlender proof the accuſed was ſeized and puniſhed, till he acknowledged the theft, and declared whether any perſon adviſed him, or was an accomplice: he was then ſet at liberty, and judges were appointed by the *Maungy* of the village to inquire what damage had been ſuſtained, which the accuſed was obliged to make good, and to fine him according to the nature and extent of his crime: on theſe occaſions the fines were heavy, to deter others from committing ſimilar offences.

When a chief had killed a poor man, the officers of his own village, and thoſe of a neighbouring village, were aſſembled, with ſome ſage old men for the trial: ſhould the fact be eſtabliſhed, the relations of the deceaſed might refuſe a commuta-

tion for the blood of the murderer, in which caſe he was delivered up to them to be put to death, and his kinſmen had to pay the expences of the trial. The ranſom was in general ten or twelve ſcores of rupees, but the relations of the deceaſed had the option of remitting the fine, and of pardoning the murderer.

All applications to a chief, to apprehend any perſon in a civil cauſe, and to appoint judges for a trial, are accompanied with a fee; and any perſon, borrowing money for that purpoſe, is compelled to pay two rupees for every one ſo borrowed, at the iſſue of the ſuit, whether he gains it or not.

A chief has no more right to ſtrike a poor man than the latter has to ſtrike him: the crime and puniſhment in either caſe is equal. Should a chief without provocation ſtrike a poor man and draw blood, the latter complains to the *Cutwal*, who with the *Phojedar*, and ſome old men, being aſſembled, and having heard the complainant, they depute an agent to their chief, to require him to anſwer the charge, which being acknowledged, the agent returns, and informs the court that the offender confeſſes his crime: the complainant then demands a certain ſum for reparation, and the agent ſets out to the offender, who, on begging a remiſſion of the fine, in general gets off by furniſhing a hog, which being killed, the blood is ſprinkled on the wounded perſon; a ſimilar misfortune is thus ſuppoſed to be averted, and, the parties reconciled, the aggreſſor paying the expences of the trial.

Should a man borrow ſome *Koſarane* for ſeed from another, and refuſe to repay for eight or ten years, and till he is compelled, the lender, on eſtabliſhing the loan before judges, will receive three rupees for each ſeer, that is due to him.

The ſame penalty is levied from thoſe who refuſe to repay a loan of *Takalloo*.

Whoever accuſes a man of committing inceſt with his mother, on proof of ſuch abuſe before a jury, will be fined a rupee for the complainant, and a hog for a feaſt to his judges.

Should a man, who is ſober and walking about, touch another who is aſleep, or ſitting, with his foot, the aggreſſor will be fined a rupee for the complainant, and a hog for a feaſt.

A perſon committing the ſame offence while drunk, is let off on giving a fowl to the complainant.

Should a man who is intoxicated, by day-light, and willingly vomit on another, on conviction before judges, he will be fined a turban and one rupee: ſhould he however, from its being dark or otherwiſe, not ſee the perſon, he is forgiven.

Should a man ſeize and cultivate a field, which his neighbour had begun to clear,

this

this offence not being cognizable before judges, the latter imprecates divine wrath, that nothing may grow on it: it is believed that his prayers will be attended to, and that the produce will be ſmall comparatively with former years.

If two men quarrel in their cups, and blood be ſhed, when ſober, judges are appointed, and the perſon who cut his antagoniſt, is fined a hog or a fowl, the blood of which is ſprinkled over the wounded perſon, to purify him, and to prevent his being poſſeſſed by a devil: the fleſh of whatever has been ſacrificed is eaten, and a feaſt reconciles the combatants; but, if the men quarrel while ſober, and one be wounded, judges are appointed, and, excluſive of a hog or a fowl for the purpoſe above deſcribed, the perſon who drew blood from his antagoniſt is fined one rupee, and a hog for the *Maungy* of the village, and, at the diſcretion of the judges, is compelled to pay a fine to his wounded antagoniſt.

Should a man by deſign or accident (in carrying fire) ſet fire to a jungle, whatever loſs is ſuſtained by the flames ſpreading, and burning grain, or men's property, he muſt make it good. If a town ſhould be ſet on fire by accident, and the whole be burned, the perſon, who accidentally cauſed the loſs, is not fined, becauſe the loſs ſuſtained would be too great for one perſon or family to defray; but, if only one or two houſes ſhould be burned, the offender and family are obliged to make entire reſtitution.

If a man be detected by a woman ſitting on her cot, and ſhe complains of the impropriety, and demands a fowl as a forfeit, he complies, but ſhe returns it; on the other hand, if a man detects a woman ſitting on his cot, and he complains and demands a fowl, ſhe muſt produce it, and he kill the fowl, ſprinkling the blood on the cot to purify it: the woman is then pardoned.

Women at certain times are conſidered impure, ſhould one in ſuch a condition touch a man by accident, even with her garment, he is defiled; and for this offence ſhe is fined a fowl, which is ſacrificed, and the blood ſprinkled on the man to purify him. Women at ſuch times may talk to men, but not touch them: a man, whoſe wife has that impurity, muſt not himſelf during that period ſit on a chief's cot; for ſo doing the fine is a fowl, and the blood is ſprinkled on the cot to purify it. He muſt not even eat or partake of any thing at a feſtival, during ſuch period of ſeparation, and any perſon detected in this offence muſt pay the expence of purification from this pollution, by another feſtival to be held for that purpoſe at his expence.

When a party are aſſembled to go a-hunting, and have arrived at their ground, the

the *Cherreen* is held to aſcertain which of the party will be moſt acceptable to the God of Hunting, to return thanks for the ſucceſs they may have: two hens' eggs are given to the perſon named: this ceremony over, ſome are ſtationed at the ſkirts of the wood, while others ſcour it to drive the game to them; on their killing either a hog or a deer, the preacher breaks one of the eggs on the tooth of the animal, and throws the contents on its head, at the ſame time returning thanks to AUTGHA, the God of Hunting; this is obſerved on the death on all large game: on their return home with their game, the heads, the tails, and fleſh on the inſide of the loins, being ſeparated, are conſidered ſacred, and women are not allowed to taſte of thoſe parts, but the hunters feaſt on them, and the reſt (one hind quarter being firſt given to the fortunate ſportſman for his ſhare), is equally divided among the party for their families: when the hunters have finiſhed their repaſt, the one who killed the game, ſacrifices a fowl to AUTGHA, the blood of which is ſhed on the fore teeth of the game, with thankſgivings to the God; and the preacher, having cut up the heart, that the blood of it may fall on his bow and arrow, breaks an egg on it, praying again to AUTGHA.

Should a woman privately eat of thoſe parts, of which they are forbidden to taſte, the mountaineers believe that AUTGHA will be offended, and prevent their having any ſucceſs in hunting on any future excurſion, and, if they do not happen to kill ſome game, the failure is attributed to the above cauſe, and the *Cherreen*, or ſuſpending a ſtone to a ſtring, is reſorted to, to diſcover the offender, who, on ſuch doubtful proof, is fined a fowl, which, being ſacrificed to AUTGHA, the God is thus ſuppoſed to be appeaſed, and will be propitious to them on the next hunting party.

If a hunter goes out alone, and wounds ſome game, and returns for aſſiſtance to find and bring it home; thoſe who go with him are entitled to one half.

When it is found, that wild boars or other game have been in a cultivated field, the owner leaves a road for the beaſts to return, and erects a ſtage to watch their coming at night: ſhould he wound any, he repairs to his village to announce his ſucceſs, and to beat up for volunteers to aſſiſt him in aſcertaining which way the game went, that they may know where to find it in the morning: they are directed in this by the groaning of the animal, which cannot run far, the poiſon, which they uſe on their arrows, being of a moſt ſubtile nature; yet its being of ſo fatal and noxious a quality does not prevent their eating the game, after cutting out a large piece of the fleſh round the arrow, which is thrown away: I heard an inſtance of a man's eating that part and dying ſoon after. A ſportſman, who goes out alone, keeps half

half of whatever game he kills, the remainder (after the *Maungy* has taken ſeveral joints of the chine) is divided among the inhabitants of the village.

A ſkilful and fortunate ſportſman, who gives up all his time to hunting, daily kills more or leſs: when ten or twelve ſcore heads of game have fallen by his ſkill, it is cuſtomary for him to take all the teeth and horns to a convenient place for prayer, and to ſacrifice a hog over them to AUTGHA, the God of Hunting, who ſometimes favours the huntſman, by drawing ſome game within view of the feſtival, that he may ſally forth to kill it, and whatever his ſucceſs may be on this occaſion, it is conſidered as an addition to his offering, and accordingly eaten on the ſame altar: it is to be obſerved, that every ſacrifice to their God is eaten.

When a hunter wounds game which he cannot find, he returns home to collect his friends to go in ſearch of it: in the interim, ſhould any perſon or perſons pick it up, carry it off and eat it; on detection, they will be fined by the judges five rupees, and as many hogs, though the complainants in general let ſuch offenders off, on their delivering one rupee and one hog.

Dogs, that will hunt, are held in eſtimation by the mountaineers, and any perſon killing one is fined ten or twelve rupees.

The penalty for killing a cat is whimſical; a perſon guilty of it muſt collect all the children of the village, and diſtribute ſalt among them, that he may avert divine vengeance.

It is related that a man, ſitting with another, obſerved his companion's clothes on fire, and that, for informing him of it, the latter demanded a fowl, to ſhed the blood of it on his burned clothes for his friend's officious kindneſs, obſerving alſo that the clothes were his, that he had no buſineſs to ſay any thing about them: this practice is now obſolete as far as regards the exaction of a fowl; but the circumſtance is related to this day.

Hoſpitality is conſidered a virtue; and, when a relation, or a man of rank, comes to ſee his friend, he is kindly received, and treated as ſumptuouſly as the ability of the hoſt will admit of: ſtrangers travelling are well received, a houſe and bedding is allotted to them, and the inhabitants contribute to furniſh them with as much proviſions as they can eat.

When a peaſant waits on his chief, to repreſent any grievance, having made his *ſalam*, he is not of himſelf to enter on the ſubject of it, unleſs he is deſired, as his chief may be thinking of buſineſs of importance, when it would be improper and diſreſpectful to interrupt him; but due attention is always paid to the complainant.

A Peaſant

A Peaſant does not ſit in the preſence of his chief, without being deſired to do ſo, and reſpect requires that he ſhould decline it two or three times before he obeys, taking care to ſit at a good diſtance: when buſineſs leads them to their chief, it is cuſtomary to have him previouſly adviſed of it: a man who has buſineſs, if he has any penetration, will obſerve at a diſtance what humour his chief is in, before he approaches him: if he ſhould ſeem pleaſed, they think it right to embrace the moment, keeping at a reſpectful diſtance and advancing but a ſtep or two as deſired; but, if he is in an ill-humour, the complainant generally defers his ſuit. It is conſidered diſreſpectful in an inferior, even to enter a chief's houſe without being invited. When a chief viſits another chief, the gueſt is always deſired to ſeat himſelf firſt.

In addition to the foregoing account, a few general remarks may neither be deemed ſuperfluous nor unneceſſary. The natives of theſe hills are moſtly very low in ſtature, but ſtout and well proportioned. To find a man ſix feet high would, I believe, be a phenomenon: there are many leſs than four feet ten inches, and perhaps more under five feet three inches than above that ſtandard. It may not however be far from the truth to conſider that as the medium ſize of their men. A flat noſe ſeems the moſt characteriſtic feature; but it is not ſo flat as the *Coffres* of *Africa*, nor are their lips ſo thick, though they are in general thicker than the inhabitants of the neighbouring plains. I ſhall not pretend to ſay whether they ought to be conſidered the aborigines or not: as they have no letter, figure, or hieroglyphicks, all accounts of their anceſtors are oral. It will however be remembered, that they conſider themſelves deſcended from the eldeſt of the ſeven brothers who, according to their tradition, peopled this earth, and who was an outcaſt for receiving his portion of every thing eatable on an old diſh; that the hills in the diſtricts of *Bhagalpore* and *Rájamahall* were allotted for him and his deſcendants: theſe being rather unproductive, and their wealthy neighbours refuſing to aſſociate with them, they had no alternative but that of plundering. Theſe cauſes are aſſigned for their remaining in barbarous ignorance. In numbers, the hill-language has only words for one and two, which are variouſly expreſſed, as applied to different ſubjects: they however uſe the *Hindi* words in counting from two to twenty; and, when reckoning any thing which exceeds that quantity, they begin again at one, numbering by ſcores. Of their manufacture and commerce little can be ſaid. The ſmall and common *Hindoſtany* bedſteads are made by the highlanders, and brought down for ſale, with the wood-work of ploughs rudely ſhaped. Wood for various purpoſes, as well as for fire, with charcoal, and planks ſhaped with a hatchet (probably

bably that they may be more portable), are alſo brought down for ſale: to theſe, bamboos, cotton, honey, plantains, ſweet potatoes, and occaſionally ſmall quantities of grain, may be added, and will, I believe, include all the articles which they barter for their few wants from the plains; ſuch as ſalt, tobacco, rice, for the purpoſe of worſhip; cloth, iron heads for arrows, hatchets, crooks, and ſuch iron implements as they may have occaſion for. I may add, that they have no manufactures; except the bedſteads, there is nothing made in the hills: they are even indebted to their neighbours on the plains for earthen pots. Salt and tobacco are their principal wants; for, in deſcribing ſuch hill-villages as are neareſt market-towns, or ſuch as have *hauts* on the plains, it is common to ſay, ſuch a hill-village is ſupplied with theſe articles by ſuch a town on the plains. Thus their trade is confined to a very narrow compaſs. Cultivation is in as unimproved and rude a ſtate as it well can be, and ſeldom more extenſive than for the immediate conſumption of the cultivator and his family. The women as well as men work in their fields. The bringing of wood and water for all domeſtic purpoſes, cooking, cleaning, arranging all houſe affairs, belong to the former; and they are alſo employed in carrying wood, bamboos, and other things to market on the plains, to exchange for ſalt and tobacco. Hence it appears, that the greateſt ſhare of labour falls to the women; and a man is rich in proportion to the number of his wives, who are ſo many labourers. There are two ſorts of ſoil which the mountaineers cultivate, the one a black earth, which is eſteemed the beſt; the inferior is called red, is ſtiff, and of the nature of clay. Where there is earth ſufficient for the purpoſe of cultivation on the ſides and tops of hills, the trees, with which theſe hills are well covered, are cut, leaving pretty large ſtumps; and ſuch as cannot be conveniently moved, or are wanted, are burned where they fall, in the places ſo cleared. Holes are made from three to four inches deep with a piece of hard wood pointed, in the middle of *June*, or ſetting in of the rains: in each of theſe, two grains of *Takalloo*, two of *Koſarane*, two or three of *Lábary*, and from five to ſeven of *Naito*, are thrown in, when they are filled with earth. Theſe holes are not made nearer than a cubit and a half; if leſs ſpace was left, the grain would be too thick, and not ſo productive. *Koppai*, *Gungarea*, *Mooto*, and *Koodama*, are ſcattered in the ſame field, with *Maſſee*, which is ſometimes ſcattered, and at others, put into ſeparate ſmall holes. In this *Kuldee* is alſo planted, and ſlips of the *Marallee*; *Bareally*, or yams, are cultivated, and grow wild likewiſe; *Takalloo*, or Indian corn, is the ſame as what is variouſly named in the plains *Bootah*, *Janeara*, *Jewar*, *Muckai*; but is larger and better on the

the hills, and is reaped in *November*. *Koſarane* is like the *Callye* grain of the plains in taſte, but is white, and rather larger: it is reaped at the latter end of *November* and beginning of *December*; *Láhary* is a large pea, reaped in *December*; *Naito* is a round ſeed, reaped in *December*; *Kappai* is cotton, and does not flower before the third year, when it is gathered in *March*, *April*, and *May*, and ſells for as much as cotton produced in the plains; *Gungarea* is a grain ſmaller than the *Cheennee* of the plain, is reaped in *September* and *October*; *Mooto* is ſomewhat like the *Gungarea*, and reaped at the ſame time; *Koodama* is alſo very ſmall grain, and reaped as the two former; *Moſſee* is the ſame as the *Bhattmoſs* of the plains, but a ſmaller grain, and is reaped in *September* and *October*; *Kuldee* is a large plantain, bears ſome fruit the ſecond year, but more plentifully the third and fourth, after which it declines; *Marallée* is the ſame as the *Sakkerkund*, or ſweet potatoe of the plains, but much larger, is taken out of the ground in *November*, *December*, and *January*. The foregoing includes all the cultivated productions of the hills: they are, as may be ſuppoſed, of a hardy nature, and are plentiful or ſcanty, in proportion to their having enough or too little rain, for they truſt entirely to the monſoon for water, having neither reſervoirs, nor any method of watering their fields; which in fact might not be poſſible, from their ſituation. This laſt ſeaſon their crops in general failed, from want of rain: on theſe occaſions, the mountaineers cut more wood and bamboos, and make greater quantities of charcoal, for which they find a ready mart in the lowlands, and exchange it for grain. From this reſource, and the thriftyneſs of ſome among themſelves, who are provident, they averted a famine during the great ſcarcity in 1769 and 1770; many of the inhabitants of the plains retired to the hills, where they got a ſubſiſtence; but, having aſſociated and mixed with the highlanders, they of courſe loſt their caſts, and therefore many remained with them. The *Takulloo* is the moſt productive of any of their grain, and is their chief ſubſiſtence. There are no eſculent herbs, nor garden-ſtuff, on the hills. *Pungdoallee*, the ſame as *Sootnee* in the lowlands, grows wild, and is larger than the *Sootnee*. In times of ſcarcity *Singlah* (in *Moors*, *Jingoor*) is found in the jungles, but it muſt be boiled in ſeveral waters, or well roaſted, and is a dangerous unwholeſome food: of much the ſame nature is *Kindallee*, which is ſliced thin and boiled in four waters, otherwiſe it is poiſonous. The *Mango*-tree, *Tamarind*, *Kuthul*, *Bale*, *Burrel*, *Bayer*, *Mowwah*, *Jamon*, *Phulſah*, *Dwarf Cudjoor*, that yields a bad kind of date, and *Keand*, with others peculiar to the hills, grow wild. Their domeſtic animals are hogs, goats, and fowls; they have alſo ſome dogs and cats; the wild animals are in

general

general the ſame that are met with in the plains, except a ſpecies of large deer, and another remarkably ſmall; the former are called *Mauk*, and the latter *Illarroo*.

The internal government of the hills, or the connection between the *Maungy* and his *Dungarear* (adherents) is a ſimple engagement for mutual protection: the *Maungy* ſwears to do them juſtice in diſputes among themſelves, and not to ſuffer them to be oppreſſed by others, and they, on their part, ſwear fidelity to him, as long as he ſhall protect them and do them juſtice: a failure on either part diſſolves the contract; in fine the *Maungy* is no more than *primus inter pares*. The *Dungarear* apply to him for land to cultivate, and he allots it: when the crops are ripe, the *Cutwal*, and *Phojedar*, on the part of the *Maungy*, repair with the proprietor of each field, to eſtimate what portion he can afford to give his *Maungy*; thus an eaſy and amicable contribution is levied by the conſent of the cultivator, who has no fixed proportion to yield to his chief; if the crops be luxuriant, he willingly gives what he can ſpare; if ſcanty, very little is demanded: if obſtinately refuſed (a caſe which ſeldom or never happens), the *Maungy* cannot forcibly take any part, but, as a puniſhment, he can prevent this refractory *Dungarea*, from cultivating in his territory again. The *Cutwal* and *Phojedar* receive a little grain for their trouble, or perhaps the *Maungy* remits their contribution; for theſe officers, as well as the *Maungy* himſelf, cultivate their fields: they have no ſalary; the ſtations perhaps give them ſome degree of conſequence, and on all trials they either receive ſome compenſation, or are feaſted; the latter, however, from their diſputes in general being trivial, is moſt common. The appointments of *Cutwals*, *Phojedars*, and *Jemmadars*, belong to the *Maungies*; and he can diſmiſs from office when any of them offend; the *Jemmadar* is merely an honorary officer. I cannot now learn, at what period the hill villages were formed into *Tuppahs*: it ſeems however to have been an aſſociation for mutual protection; for the *Sirdar Maungy*, or chief of a *Tuppah*, receives no contribution from any village, but his own, or one in which he reſides: when appealed to, or applied to for juſtice, he is paid in proportion to the amount or magnitude of the cauſe. He could aſſemble the ſeveral *Maungies* with their adherents on any offenſive or defenſive operations, but could not compel thoſe to act, who diſapproved of the motives. In their wars when highlanders were made priſoners, they were either ſet at liberty, or were ranſomed. In their deſcents into the plains they were not however ſo merciful; all who oppoſed them were put to death: thoſe who made no defence, women and children, were ſtripped of ſuch valuables as they might have, but neither puniſhed nor made priſoners: on ſuch occaſions the

chaſtity of women was held inviolable; for it was believed, if any of the aſſailants committed violence on the perſons of females, that he would infallibly loſe his reaſon and die: the bow and arrow is the only arm peculiar to theſe mountaineers, ſome few have ſwords, and ſtill fewer have match-locks, but theſe probably were collected in their predatory incurſions into the plains, either in war or hunting; in general they uſe the bow and arrow in the former, but always in the latter, though I do not think they are expert archers, when it is conſidered they are all hunters, from the time they can carry theſe arms, and are ſo fond of that diverſion, that they go out at all ſeaſons, and undergo great fatigue for the gratification which it affords them: a poiſoned arrow is always uſed in hunting, but never in war, though they generally had them, as it is ſaid, to be prepared for any game that might ſtart.

There are no ſlaves on the hills; ſlavery can neither be ſaid to have been tolerated, nor forbidden: parents never ſell their children, and thoſe who hire themſelves as ſervants, ſtay no longer than they agree with or like their maſters.

Enough may have been ſaid of their modes of worſhip: they are not the firſt race of people, who, we are taught, believed that the chief means of pleaſing the Gods, and of pacifying them when they were angry, conſiſted in certain ceremonies, ſacrifices, and feaſts, in the due obſervance of which they conceive their welfare depends; for, in praying, the ſuppliant ſays little more than to recommend himſelf and family to the Supreme Being, and ſubordinate Deities, and to promiſe oblations at the ſhrine of the God he then worſhips, provided he is fortunate, and enabled ſo to do by his proſperity: their expiatory ſacrifices are however confined to the brute creation; there is no inſtance of their offering up any of the human ſpecies to appeaſe the gods, who are ſuppoſed to be abundantly pleaſed by the votaries feaſting as large congregations of men as they can afford to entertain; for, in proportion to the expence in meat and ſpirituous drink, the piety of the votary is meaſured. The part which the *Demauno*, their oracle, "dreamer of dreams," bears in their ceremonies and forms of worſhip has already been deſcribed: Before a man vows to ſacrifice at any ſhrine, he conſults the *Cherreen* and *Satane*; when theſe agree, he repairs to the *Demauno*, without informing him of the reſult of thoſe two proceſſes, but explains to him the cauſe of waiting on him; the *Demauno* is allowed one, two, and even three nights to confer with the Deity in a viſion, to preſcribe what the ſuppliant ought to do; and, as it is believed he has familiar intercourſe with God in his dreams, his decrees are obeyed, though, when they differ from what was diſcovered by the *Cherreen* and *Satane*, theſe are held over again to reconcile them.

The

The women neither offer ſacrifices, nor approach the ſhrines of their Gods; even huſbands are forbidden to partake of feſtivals during the ſeparation of their wives: theſe prohibitory laws regarding women, are of an old date, and their origin, perhaps, not well known.

COLONEL BROWN, in his account of theſe hills, forwarded to government in 1779, obſerves that it was about fifteen years ſince the hill people had any government among themſelves of a general nature, during which period they had become dangerous and troubleſome to the low country, that their ravages had been the more violent, as they were ſtimulated by hatred againſt the *Zemindars*, for having cut off ſeveral of their chiefs by treachery. The Colonel might have added, that, during that interregnum or diſſolution of government, it was a common practice for the *Zemindars* on the ſkirts of the hills to invite the chiefs in their vicinity with their adherents to deſcend, and plunder the neighbouring *Zemindaries*, for which, and for the paſſage through their lands, the mountaineers divided the booty with them; thus at one time, from repeated acts of treachery in the *Zemindars*, the mountaineers were provoked to take ample vengeance on them, and their unhappy riots; and at other times, from their engaging the chiefs to make predatory incurſions, to which they were ſtrongly incited, no leſs from a deſire of plundering their more opulent neighbours, than from the difficulty of obtaining ſalt and tobacco from the *hauts*, all friendly intercourſe was at a ſtand; the low country bordering on the hills was almoſt depopulated, and travellers could not paſs with ſafety between *Bhaugulpore* and *Furruckabad*, nor could boats, without danger of being plundered, put to for the night on the ſouth ſide of the *Ganges* between the before-named places. It was at this period of double treachery on the part of the *Zemindars*, and predatory hoſtilities on the part of the mountaineers, (from which it may not be a ſtrained inference, that the machinations of the former were in a great meaſure the cauſe of that neceſſity which impelled the latter to ſuch frequent and fatal deſcents, when theſe public and private incendiaries were making large ſtrides in ruining theſe once fertile diſtricts?) that Captain BROOKE was ſtationed with a corps of light infantry to avert their utter deſtruction. On this duty, it is well known that he acquitted himſelf with great credit, from his uncommon exertions and ſucceſſes in purſuing the unfortunate mountaineers into their hills, where numbers muſt have unavoidably fallen; for it became unqueſtionably neceſſary to impreſs them with a dreadful awe of our proweſs: and in this haraſſing and unpleaſant warfare, I have been well informed by officers, who were with Captain BROOKE, that his gallant conduct could

not

not be too much commended: he made them ſenſible of the inefficacy of oppoſing him in the field, and invited the chiefs to wait upon him and negociate, when he gave a feaſt to thoſe who came and made them preſents of turbans; but before any permanent eſtabliſhment took place, he was ſucceeded in the command of the light infantry by Captain BROWNE, who made further progreſs in conciliating the minds of the diſcomfited mountaineers: he placed them on the road from *Furruckabad*, near *Colgong*, to protect the *Dawks*, on which duty they ſtill continue. From this and other meaſures of his, Captain BROOKE and he, it will be allowed, laid the foundation for the moſt permanent and happy ſettlement concluded with the hill chiefs by the late Mr. AUGUSTUS CLEVELAND, that could poſſibly be attained: he was ſenſible from the rapine and decay of theſe diſtricts, that the peaceable deportment of the mountaineers ought to be purchaſed; and, while he was reconciling them to become ſubjects to the *Britiſh* government, he beſtowed liberal preſents in money and clothes, to the chiefs, and to all the men and women who came down to him. Of his generoſity they ſpeak with gratitude; and for the bleſſings and benefit which they derive from the wiſe and judicious conditions which he granted, and which were confirmed by government, I hope they will ever have reaſon to be thankful: as long as that government laſts, the comforts and happineſs which they derive from them, muſt ever enſure their obedience. To engage their confidence, Mr. CLEVELAND, in the early part of his intercourſe with the mountaineers, entertained all who offered their ſervices as archers, and appointed many of the relations of the chiefs, officers; they were not (nor are they as rangers, though they very ſeldom now aſk their diſcharges) bound to ſerve for any limited time; the corps, of courſe, conſtantly fluctuated, and was frequently, I underſtand, above a thouſand ſtrong: he clothed them, and in leſs than two years after they were formed, from the confidence he had in their attachment and fidelity, obtained fire-arms for them, in the uſe of which, I may venture to obſerve, that they are expert, and have addreſs; and I can alſo without heſitation aſſert, that they are capable of as high a degree of diſcipline as any native corps in the ſervice; and I truſt I ſhall have the happineſs to prove this in due time. Excluſive of having thus employed ſo many of the mountaineers, Mr. CLEVELAND fixed the ſalary of ten rupees per month for each chief of a *Tuppah*, three rupees ditto for each of his *Naibs*, and two for the *Maungy* of each village, from which there ſhall be a man enrolled in the hill-rangers; but from ſuch as ſupply not a man, the inferior *Maungy* receives no monthly allowance. In conſideration of theſe eſtabliſhments, I underſtand, the chiefs are not only

reſponſible

reſponſible for the peaceable deportment of their own adherents, but bound to deliver over all delinquents, and diſturbers of the publick peace, within their own limits, to the collector, to be tried by an aſſembly of the chiefs, either at *Bhaugulpore* or *Rájamahall*, as already related. It has ever been cuſtomary on theſe occaſions to feaſt the chiefs ſo aſſembled; when any report is to be made to the collector, it is the duty of a *Naib* to wait on him with it, ſhould the chief be indiſpoſed or otherwiſe prevented.

From theſe happy and admirable arrangements, digeſted by Mr. CLEVELAND, whoſe name ought to be dear both to the natives of the hills and lowlands, the eaſe, comfort, and happineſs of the former is enſured (for which they are grateful, and ſpeak of him with reverential ſorrow), and peace and ſafety ſecured to the latter; and if they have any goodneſs, they ought not to be leſs thankful. Theſe ſolid and eſſential benefits are attended comparatively with but a trivial expence, and muſt ultimately be an advantage to government. I have been led to ſay more on this ſubject than I intended; yet it may not be thought foreign to it, to add, that the *Aumlah* and *Zemindars* erected a monument to the memory of Mr. CLEVELAND, nearly in the form of a Pagoda, and that another was alſo erected at the expence of government, by the order of the Honourable the Governor General and Council; on which is the following inſcription:

To the memory of AUGUSTUS CLEVELAND, Eſq.
Late collector of the diſtricts of *Bhaugulpore* and *Rájamahall*,
Who without bloodſhed or the terrors of authority,
Employing only the means of conciliation, confidence, and benevolence,
Attempted and accompliſhed
The entire ſubjection of the lawleſs and ſavage inhabitants of the jungleterry of *Rájamahall*
Who had long infeſted the neighbouring lands by their predatory incurſions,
Inſpired them with a taſte for the arts of civilized life,
And attached them to the *Britiſh* Government by a conqueſt over their minds;
The moſt permanent, as the moſt rational, mode of dominion.
The Governor General and Council of *Bengal*,
In honour of his character, and for an example to others,
Have ordered this monument to be erected.
He departed this life on the 13th day of *January*, 1784, aged 29.

Before I conclude, I muſt do the mountaineers the juſtice to mention, that they have as great a regard for truth as any people on earth, and will ſooner die than deliberately tell a falſehood. In this I muſt confine myſelf to thoſe who have not aſſociated

aſſociated or mixed in converſation with their neighbours, the *Hindu* and *Muſſelman* of the plains; where it is well known, lie and intereſt are ſynonymous terms: and what change in this reſpect a more familiar intercourſe will occaſion, I ſhall not pretend to premiſe.

They are in general of a cheerful diſpoſition, and humane: both men and women are remarkably baſhful. When aſked to ſing (their notes are wild and drawling, having a ſlow cadence, from forte to piano) or dance, they ever anſwer, that they can do neither without drinking freely, for they are aſhamed until they are intoxicated. Like all people in ſo rude and uncultivated a ſtate, they are paſſionately fond of all ſpirituous liquors, and, I am inclined to believe, prefer that which from its ſtrength will inebriate them the ſooneſt. Hence it appears they are not aſhamed of being drunk, and in fact their religion promotes it, for a feſtival would not be much eſteemed, that was unattended with a hearty carouſe.

I conceive, inſtances of remarkable longevity are very rare: I have heard of one man who was ſaid to be more than five ſcore; but, as I have never met with any of them that appeared ſo old, or that could tell his age, for they keep no account of it, I am inclined to doubt the fact. In a late excurſion with Mr. GRANT into the hills, we ſaw an old woman, who was ſaid to be of a great age: ſhe was a relation to a chief, whoſe houſe we were at; and having taken a cheerful glaſs, with his wives and daughter, of liquors which Mr. GRANT had carried up to give them, ſhe ſet them the example of ſinging and dancing to us; in which ſhe was followed by the chief and two of his youngeſt wives, who were at that time far from ſober. When we had dined, the meat that remained was given to them; of which, the family being aſſembled, they thankfully partook, and made indubitably a more luxurious meal than they ever had before. We took a route in which no *European* had been; and Mr. GRANT, to reconcile them to ſo novel a ſight, as well as to conciliate their attachment, carried up a variety of preſents of clothes, beads, and looking-glaſſes; which he diſtributed with money to every family in all the villages we paſſed, and thus left them the moſt acceptable memorials of their viſitors.

Bhaugulpore, June 27, 1792.

ADDITIONAL REMARKS ON THE SPIKENARD OF THE ANCIENTS.

—*See the Works of Sir William Jones, Vol. II. p.* 23.

ON THE DHANESA, OR INDIAN BUCEROS.

By Lieut. CHARLES WHITE.

Communicated by Lieut. FRASER.

THERE are two diſtinct ſpecies of this bird; one called *Bægma Dunnaſe*, and the other *Putteal Dunnaſe*.

I ſhall firſt treat of the *Bægma*, which is divided into two kinds; the ſpecifick marks of which I ſhall hereafter mention.

The *Bægma Dunnaſe* is a very remarkable bird, and, I believe, has not hitherto been deſcribed. As far as lies in my power I ſhall endeavour to reſcue it from a ſituation ſo unworthy the diſtinction it has a ſtrong claim to among the curious productions of nature.

It may be neceſſary to premiſe, that the names of *black-horned* and *white-horned* are given by myſelf, the natives not making any diſtinction between them. I have beſtowed upon them theſe names from the difference of the baſes of their horns.

Black-horned *Bægma Dunnaſe*, with a large double beak, or a large beak ſurmounted by a horn, ſhaped like the upper mandible, which gives it the appearance of a double beak; the horn is hollow, at the baſe brown, with a broad edging of *black*, quite hard; a black mark runs from about one inch from the baſe to the point of the horn, very irregular in its breadth, in the centre reaches to the junction of the horn with the upper mandible: upper and lower mandible ſerrated, and ſeparate from each other, about three inches in the middle of the beak longitudinally; upper mandible marked with black at its junction with the head, which part is quite hard; immediately below this, the lower mandible has a large black mark, which appears on both ſides, and joins at the bottom; joining to this and covering the baſe of the lower mandible, is about an inch of white ſhrivelled ſkin; between theſe, at the edge of the mandible, is a ſmall brown ſpot covered ſlightly with feathers; the reſt of the beak and horn cream colour, patched with yellow, except the point, which is much whiter; the noſtril placed at a ſmall diſtance from the head, in the junction of the horn with the beak: head, neck, back, and coverts of the tail, black; breaſt, belly, thighs, and coverts of the vent, white; ſcapulars, greater and leſſer coverts of the wings, black, varying to a greeniſh tinge; under coverts of the

the wings, white; primaries, white at their baſe, then black, with three inches of white at their ends; ſecondaries, nearly the ſame; tertials, black; a few white feathers on the outward edge of the wing, juſt below the ſhoulder; tail cuneiform, two middle feathers black, longer than the reſt, which are white, four on each ſide: creſted, cloſe; the feathers extending a little way down the neck: eye, ſpeculum black, irides reddiſh brown; the cheek, immediately round the eye, and extending from the beak to the ear, devoid of feathers, conſiſting of a ſhrivelled ſkin, which is nearly black; ear-feathers, about an inch long, extending partly acroſs the head; tongue, ſhort, formed like a dart with the ears of the barb raiſed above the ſhaft; near the epiglottis it ſwells to the ſize of a ſmall nutmeg, which part is perforated: when the mouth is open, a black and brown knob appears below the upper mandible, riſing from its baſe to an inch beyond its apparent junction with the head: legs and feet, black, tinged with brown, and dirty white: claws, large, and ſtrong, three in front, and one behind: length upon an average from the forehead to the tip of the tail, two feet eight inches: extent, three feet two inches.

White-horned Bægma Dunnaſe, agreeing with the former in deſcription, except in the following particulars: the horn in theſe is generally ſmaller, and blunter at the point, and at the baſe it is ſoft, conſiſting of a membraneous ſubſtance; the ground white marked with crimſon; the ſkin, which covers the baſe of the lower mandible, is very differently ſhaped and is much ſtained with crimſon, only a ſmall ſpot of black upon the upper mandible, where it joins the head, which junction is ſoft; eye black, the ſkin round the eye, extending to the ear, white marked with crimſon; the ear-feathers form a curve, beginning in the centre of the black mark of the lower mandible running along it, and riſing above the ear, where it joins the creſt: in ſome I have obſerved the white tail-feathers marked in the web with black at their baſe: theſe birds in ſize are rather ſmaller than the firſt.

Putteal Dunnaſe, with a double beak, or horn, upon the upper mandible, over which it curves about half way, baſe hid in feathers; horn black, except at the lower edge, near the point, which is brown; the upper mandible black in the middle, ſhaded off to white at the point; lower mandible the ſame, white at the bottom, both ſerrated; a ſmall black projection from the bottom of the lower mandible, creſted, cinereous, tinged with brown; the feathers, from the eye to an inch over the beak, iron-grey, daſhed with brown; ear-feathers dark iron-grey, forming a curve from the lower part of the eye, extending nearly acroſs the head, under the creſt; back, grey; neck the ſame, much lighter; breaſt, belly, thighs, and coverts,

of

of the vent, white; coverts of the tail, greyiſh brown; ſcapulars, greater and leſſer coverts of the wings, lead colour; primaries at the baſe of the web, black, then dark grey, edged with white; each primary white at the end, near an inch; ſecondaries nearly the ſame; tertial greyiſh brown; under coverts of the wings, white; tail cuneiform, very long, two middle feathers reddiſh brown, longer than the reſt, which are ferruginous, tipt with near an inch of white, above which is a mark much larger, black; eye, ſpeculum black, irides reddiſh brown; from the beak to the ear-feathers, and round the eye, bare; this part is black; legs and feet black, marked with dirty white at the joints; claws large and ſtrong; length two feet five inches, from the tip of the beak to the tip of the tail; extent two feet four inches.

The laſt of theſe birds is to be met with in almoſt every part of the country, more particularly where there are jungles: I have ſeen a variety of them at *Burragong* in *Sircar Sarun*, where, inſtead of the horn, they had a large knob at the baſe of the beak, very much reſembling that of a wild gooſe: the one I have attempted to give a deſcription of, was brought to me, at *Midnapore*, in which province and the extending hilly country, they abound. I have ſeen them in the vicinity of *Sheergotty*.

The *Bægma Dunnaſe* chiefly inhabits the weſtern range of hills, extending from *Neelgur* through *Mohurbunge*, *Midnapore*, *Ramgur*, *Rotas*, towards *Bidzigur*. In *Ramgur* I have been informed by an intelligent perſon, they are to be ſeen in abundance, he told me that he had ſeen crouds of them on the *Peepul* trees; the berry of which they feed upon at times. Their note, or voice in concert, has a ſtrong reſemblance to the mournful cries of monkies, for which this perſon, deceived by the ſound, at firſt took them. The place where I met with them, was at *Midnapor*, in the *jungles* adjacent to which they are to be found from the month of *November* to the month of *March* only, at which time, they retire to the hills to breed. I ſhould have been highly pleaſed, could my curioſity have been gratified in the enquiries I made, reſpecting the œconomy of this extraordinary bird, but the people I had to deal with, were poor ignorant folk from whom I could gain but little information; I therefore can do little more than aſcertain one curious fact, and diſplay ſome qualities of the bird, which may hereafter be of benefit, if thoroughly inveſtigated by ſome perſon of medical ſkill.

Theſe birds have a moſt remarkable appearance when in the act of flying, from the great ſize of their beaks, and length of tail. I have ſeen ſeveral of them in this

ſtate; and a more uncouth object I never beheld. The beak, which forms the moſt prominent feature in this ſtrange bird, may be conſidered as one of the moſt uncommonly curious among the feathered tribe. The *Toucan*, the *Spoonbill*, the *Pelican*, the *Dodo*, and others, certainly claim the attention of the naturaliſt; but in my humble opinion the *Bægma* has merits far ſuperior, on the ground of rarity. The largeſt beak I ever ſaw was produced from a bird ſhot at a place called *Kullar*, about nine miles from *Midnapore*. The following is the meaſurement:

	Inches.
Length of the beak in a ſtraight line from its junction with the head	8½
Length of the horn from the baſe to the point	8½
Depth of the whole beak, including the horn, near	4½
The horn to its junction with the upper mandible	2¼
Each mandible in the centre of the beak	1
Diſtance from the point of the horn to the point of the beak	3

It may be proper to obſerve here, that the beak forms a much greater curve than the horn, the point of which is parallel to its junction with the beak; whereas the point of the beak comes down an inch and a quarter below the lower mandible. The following is the meaſurement of the bird to which this beak belonged.

	Feet.	Inch.
Length from the forehead to the tip of the tail	2	9
Circumference in the thickeſt part	0	15
Neck, from the chin to the ſhoulder	0	6
Body, from the ſhoulder to the rump	1	0
Tail, from the rump to the point	1	1
Height and breadth of the head	0	3½
Circumference of the neck in the middle	0	6
Length of the wing, when cloſed	1	1½
Ditto when open	1	5½
Extent when expanded from tip to tip	3	3
Length of the legs	0	1½
Ditto of the toes	0	2¼
Ditto of the claws, largeſt	0	0¾
Circumference of the legs	0	1½

I have

I have to regret that I did not weigh this bird: indeed at the time I had no idea that I ſhould attempt the deſcription of it; I can only therefore venture to gueſs that it might weigh about ſix or ſeven pounds. I took a drawing of the bird, which has enabled me to give the above account.

I endeavoured to acquire ſome information from the bird-catchers reſpecting the uſe of the horn, upon the idea that *nature forms nothing in vain*; but all that I could learn was unſatisfactory, and amounted to little more than this: one of the beaks was brought to me with the horn very much worn at the point, which they told me proceeded from the bird's ſtriking it againſt the trees; but for what particular purpoſe they ſo applied it, they could give no clear account.

But what may be probably deemed the moſt extraordinary cirumſtance relating to this curious bird is its feeding upon the *Nux vomica.* This is a point, which I have been able clearly to aſcertain: one of theſe birds, purchaſed by Capt. JOHN CAMPBELL was opend by his orders, before ſeveral reſpectable gentleman at *Midnapore:* and in its craw was found ſeveral ſeeds of the *Nux vomica.* With reſpect to my own obſervation, I have had only one opportunity of ſeeing the contents of the craw which was that of the bird ſhot at *Kullar*; nothing was found in it, but the remains of an egg and ſome weeds: but to carry on the enquiry, that I might be able ſafely to aſſert what appeared to me a circumſtance of great curioſity, I aſked the bird-catchers what theſe birds fed upon: they very particularly mentioned a fruit called *Coochla*; agreeably to my directions, they brought it to me: it was about the ſize of a lime, of an orange colour, with a very hard ſkin, ſhining and almoſt ſmooth, it contained a pulpous ſubſtance, diſtinct and ſeparate from the ſhell: converſing ſince with a man, who had been in Major CRAWFORD's corps at *Jelda*, who had ſeen great numbers of theſe birds in the ſurrounding hilly country, I inquired of him what they fed upon; he ſaid ſometimes upon the berry of the *Peepul* tree, but that the food they affected moſt, and with which they were moſt delighted, was the *Coochla*, which he ſaid was to be had in every *bazar:* he brought me ſome of it; it proved to be the true *Nux vomica,* which, from an account given to me by a native, is produced from the fruit above-mentioned; the *pulpous* ſubſtance drying leaves one, two, and ſometimes three of the flat ſeeds, which are known as the *Nux vomica:* and this agrees with the account given of it by CASPER NEUMAN in his *Chemical Works*, who ſays, "*Nux vomica*, ſo called, is not a nut, but the ſeed of a "fruit, like an orange, growing in the *Eaſt Indies.*" The tree, which produces the *Coochla,* abounds in the range of weſtern hills before mentioned; it varies in its ſize,

ſize, ſometimes attains to a conſiderable height, has a leaf ſhaped like a heart: it appears from what I have ſaid, that theſe birds feed not only upon the ſeed, when it has arrived at a ſtate of maturity, but that they alſo eat it in the ſtate it was brought to me by the bird catchers; and that, when the *Coochla* is not to be had, they reſort to other food. Theſe birds at particular ſeaſons grow very fat, and this ſeaſon appears to be, when the fruit of the *Nux vomica* prevails, about the month of *December:* the one before-mentioned, ſhot at *Kullar*, was killed in that month and was very fat. The natives make uſe of the fat, and alſo of the fleſh and bones, as a medicine; they apply both ſpecies to this purpoſe. The caſes they uſe it in, are in the contractions, which ſometimes proceed from catching cold after the uſe of mercury; it is applied to alleviate and remove violent pains, that often ſucceed venereal complaints, called by the natives *Guttea ke Azar:* it is alſo uſed by the natives, in very cold weather, when the pores of the ſkin are affected, for, being in its nature extremely hot, in this caſe it cauſes a free perſpiration; the *Bægma* is preferred to the *Putteal*, as being deemed more efficacious. The mode they apply it in, is this: they reduce the fat to an ointment, at the ſame time mixing with it every kind of ſpice, pepper, cloves, cardamums, &c. the fleſh is alſo mixed in the ſame manner; the ointment is rubbed into the part affected every night when they go to ſleep, and a certain portion of the meat is eaten in the morning riſing: the gall is alſo uſed by the native women in caſes of ſterility. They take it either infuſed in water, or mix it with their *Pawns*, and of the efficacy of this they have the firmeſt reliance under providence. I enquired of the perſon, who gave me this account, whether he had ever known any one, who had been benefited by this medicine; he told me, that he was acquainted with a man, who had uſed it in contractions of his limbs, and that this perſon declared he had derived great advantage from the application: at any rate, it is certainly an opinion generally adopted by the natives, that it is of great uſe in caſes I have mentioned. With every one, with whom I have converſed, the medicinal properties of this extraordinary bird are held in the higheſt eſtimation: they ſpeak of it with a degree of admiration bordering on enthuſiaſm. Thus I have endeavoured from the ſlight ability I poſſeſſed, to bring forward to public notice one of the moſt curious birds I have ever ſeen or heard of: ſome allowance, I truſt, will be made, from the conſideration that this is my firſt eſſay; perhaps, I ſhould never have made the attempt, but from having taken a drawing of the bird, and having heard of its feeding upon the *Nux vomica:* theſe circumſtances induced me to give the above account. WOLF, in his deſcription of

Ceylon,

Ceylon, has the following words: " a very rare ſpecies too of cock is found here, " called double-billed; this has a white double bill, which is almoſt as large as the " bird itſelf." It is by no means improbable, that this may be the ſame bird, which I have given an account of; the beak of the *Bægma Dunnaſe*, particularly when in the act of flying, appears to be as large as the bird itſelf; the depth in meaſurement is nearly the ſame. It is impoſſible to form any reaſonable conjecture reſpecting the uſe of the horn: that ſome it muſt have, may naturally be ſuppoſed; but what, muſt be left to the future inveſtigation of ſome one, whoſe ſituation will afford him full opportunity of making the inquiry; it is certainly an object worthy of attention, more particularly ſo, as tending to elucidate the wiſdom of the Supreme Being, who *undoubtedly* creates nothing in vain.

REMARK BY THE PRESIDENT.

THOUGH the genus of the DHANE'ṢA be already known to our naturaliſts by the appellations of *Buceros*, *Calao*, and *Hornbill*, and though even the ſeveral ſpecies be diſtinguiſhed, I believe, with exactneſs, yet we are obliged to Lieut. WHITE for a *complete deſcription* of ſo extraordinary a bird, and for our knowledge of the *ſingular facts*, which he firſt made publick: the *hollow protuberance* at the baſe of the upper mandible, has been ſuppoſed, with reaſon, by COUNT GIKA to *ſerve as a receptacle for nouriſhment*, and the natives, I find, conſider it as a natural ciſtern to ſupply the bird with water in the dry ſeaſon and on its long excurſions; whence the name of *Dhanéſa*, or *Lord of Wealth*, may poſſibly have been given to it. The count had been informed, that it was no other than the *Garuda* of *Indian* Mythologiſts; but the *Pandits* unanimouſly aſſure me, that, by the word *Garuda*, they mean in common diſcourſe the *Gridhra*, or King of *Vultures*, and they have a curious legend of a young *Garuda*, or Eagle, who burned his wings by ſoaring too near the ſun, on which he had fixed his eyes: the bird of VISHNU is in fact wholly mythological; and I have ſeen it painted in the form of *a boy with an Eagle's plumage*. As to the *Cuchilá* (for ſo is the word written and correctly pronounced) it is, no doubt, the STRYCHNOS *Nux vomica or Colubrina*, for they are now thought *ſpecifically* the ſame: the leaves and fruit of both the *varieties* were brought to me by a *Bráhmen* as thoſe of the *Cuchilá*, and he repeated a *Sanſcrit* verſe, in which it was called *Vanarája*, or *King of the Foreſt*; but, according to an approved comment on the *Amaracóſh*, it has four other names, among which *Culaca* is the ſmootheſt; that

the

the firſt true ſpecies of this genus may be named STRYCHNOS *Culaca*, and the ſecond, STRYCHNOS *Cataca*; by which denomination it is mentioned in the Laws of MENU, where alluſion is made to the *Indian* practice of clearing water, by bruiſing one of the ſeeds and caſting it into the jar, *where*, ſays KOENIG, *all impurities are in a few moments precipitated, and the water becomes perfectly limpid.*

ON THE ISLANDS NANCOWRY AND COMARTY.

By Lieut. R. H. COLEBROOKE.

THE iſland of *Nancowry*, or *Soury*, as it is ſometimes called, is nearly centrically ſituated among the *Nicobar* iſles. Its length may be about eight miles, and its breadth nearly equal. The iſland of *Comarty*, which is near it, is more extenſive, but does not perhaps contain more ſolid land, being excavated by a very large bay from the ſea. The ſpace between theſe two iſlands forms a capacious and excellent harbour, the eaſtern entrance of which is ſheltered by another iſland, called *Trikut*, lying at the diſtance of about a league. The inlet from the weſt is narrow, but ſufficiently deep to admit the largeſt ſhips when the wind is fair.

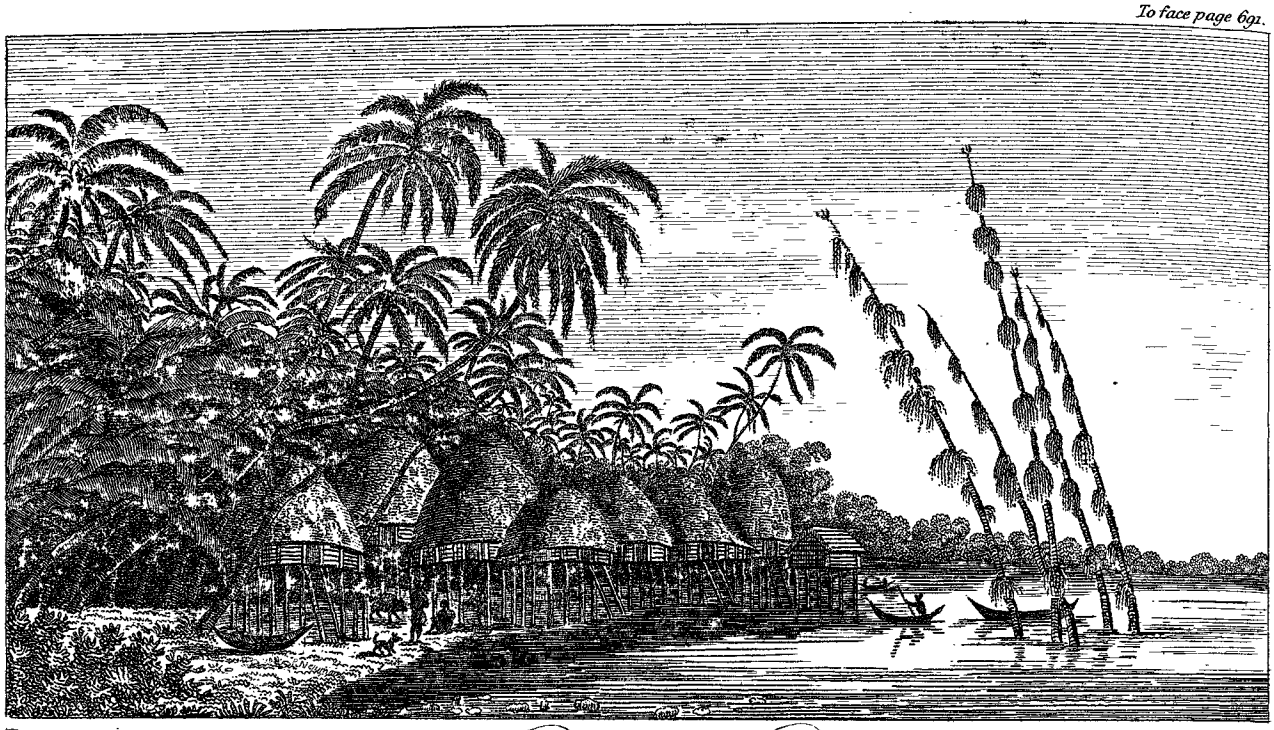
The *Danes* have long maintained a ſmall ſettlement at this place, which ſtands on the northernmoſt point of *Nancowry*, within the harbour. A ſerjeant and three or four ſoldiers, a few black ſlaves, and two ruſty old pieces of ordnance, compoſe the whole of their eſtabliſhment. They have here two houſes, one of which, built entirely of wood, is their habitation; the other, formerly inhabited by their miſſionaries, ſerves now for a ſtorehouſe.

Theſe iſlands are in general woody, but contain likewiſe ſome portions of clear land. From the ſummits of their hills the proſpects are often beautiful and romantic. The ſoil is rich, and probably capable of producing all the various fruits and vegetables common to hot climates. The natural productions of this kind, which moſtly abound, are cocoa-nuts, *papias*, plantains, limes, tamarinds, betel-nuts, and the *mellóri* *, a ſpecies of bread fruit; yams, and other roots, are cultivated and thrive; but rice is here unknown. The *mangoſtain*-tree, whoſe fruit is ſo juſtly extolled, grows wild; and pine-apples of a delicious flavour are found in the woods.

* Mr. FONTANA has given an accurate and learned deſcription of this fruit. Vide p. 449.

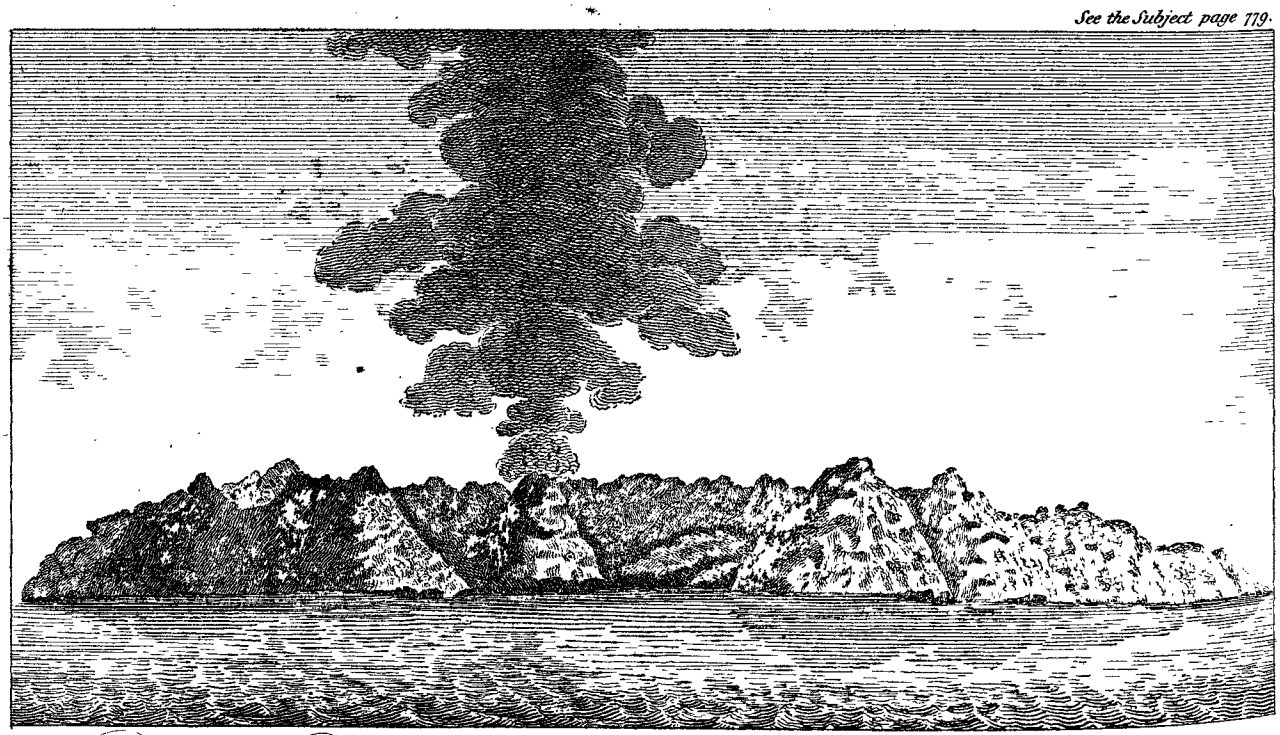
The

To face page 691.



A Village at Nancowry.

See the Subject page 779.



View of the Volcano on Barren Island bearing East one Mile distant.

The *Nicobar* iſles are but thinly inhabited, and ſome of them are not inhabited at all. Of thoſe we viſited, *Nancowry* and *Comarty* appeared to be the beſt peopled. There were thirteen villages, we were told, upon both iſlands; each village might contain, upon an average, fifty or ſixty people; ſo that the whole population of theſe two will ſcarcely amount to eight hundred.

The natives of *Nancowry*, and of the *Nicobar* iſlands in general, live on the ſea-ſhores, and never erect their habitations inland *. Their houſes are of a circular form, and are covered with elliptical domes, thatched with graſs and the leaves of cocoa-nut. They are raiſed upon piles to the height of ſix or eight feet above the ground; the floor and ſides are laid with planks, and the aſcent is by a ladder. In thoſe bays or inlets which are ſheltered from the ſurf, they erect them ſometimes ſo near the margin of the water as to admit the tide to flow under, and waſh away the ordure from below.

In front of their villages, and a little advanced in the water, they plant beacons of great height, which they adorn with tufts made of graſs or the bark of ſome tree. Theſe objects are diſcernible at a great diſtance, and are intended probably for land-marks; their houſes, which are overſhadowed by thick groves of cocoa-nut trees, ſeldom being viſible from afar.

The *Nicobarians*, though indolent, are in general robuſt and well limbed. Their features are ſomewhat like the *Malays*, and their colour is nearly ſimilar. The women are much inferior in ſtature to the men, but more active in all domeſtic affairs. Contrary to the cuſtom of other natives, they ſhave the hair of their heads, or keep it cloſe cropt; which gives them an uncouth appearance, in the eyes of ſtrangers at leaſt. The dreſs of both ſexes, their mode of life, and ſome of their cuſtoms, have been ſo ably deſcribed by Mr. FONTANA, that little needs be ſaid of them here: I have only to ſtate, in addition, an extraordinary ceremony, which they annually perform in honour of the dead.

On the anniverſary of this feſtival, if it can be ſo called, their houſes are decorated with garlands of flowers, fruits, and branches of trees. The people of each village aſſemble, dreſt in their beſt attire, at the principal houſe in the place, where they ſpend the day in a convivial manner; the men ſitting apart from the women, ſmoke tobacco and intoxicate themſelves, while the latter are nurſing their children and

* The great *Nicobar* iſland is perhaps an exception, where, it is ſaid, a race of men exiſts, who are totally different in their colour and manners. They are conſidered as the *Aborigines* of the country. They live in the interior parts, among the mountains, and commit frequent depredations on the peaceable inhabitants of the coaſts.

employed

employed in preparations for the mournful buſineſs of the night. At a certain hour of the afternoon, announced by ſtriking the *Goung* *, the women ſet up the moſt diſmal howls and lamentations, which they continue without intermiſſion till about ſun-ſet; when the whole party gets up, and walks in proceſſion to the burying ground. Arrived at the place, they form a circle around one of the graves, when a ſtake, planted exactly over the head of the corpſe, is pulled up. The woman, who is neareſt of kin to the deceaſed, ſteps out from the crowd, digs up the ſcull †, and draws it up with her hands. At ſight of the bones, her ſtrength ſeems to fail her; ſhe ſhrieks, ſhe ſobs; and tears of anguiſh abundantly fall on the mouldering object of her pious care. She clears it from the earth, ſcrapes off the feſtering fleſh, and laves it plentifully with the milk of freſh cocoa-nuts, ſupplied by the byſtanders; after which ſhe rubs it over with an infuſion of ſaffron, and wraps it carefully in a piece of new cloth. It is then depoſited again in the earth, and covered up; the ſtake is replanted, and hung with the various trappings and implements belonging to the deceaſed. They proceed then to the other graves, and the whole night is ſpent in repetitions of theſe diſmal and diſguſtful rites.

On the morning following, the ceremony is concluded by an offering of many fat ſwine, when the ſacrifice, made to the dead, affords an ample feaſt to the living; they beſmear themſelves with the blood of the ſlaughtered hogs, and ſome, more voracious than others, eat the fleſh raw. They have various ways however of dreſſing their meat, but always eat it without ſalt. A kind of paſte made of the *mellóri* ſerves them for bread, and they finiſh their repaſt with copious potations of *taury*.

The *Nicobareans* are hoſpitable and honeſt, and are remarkable for a ſtrict obſervance of truth, and for punctuality in adhering to their engagements. Such crimes as theft, robbery, and murder, are unknown in theſe iſlands; but they do not want ſpirit to revenge their injuries, and will fight reſolutely and ſlay their enemies, if attacked or unjuſtly dealt with ‡. Their only vice, if this failing can be ſo called, is inebriation, but in their cups they are generally jovial and good humoured. It ſometimes however happens at their feaſts, that the men of different villages fall out,

* An inſtrument of braſs, ſomewhat like the *Gurry* of *Bengal*. Its ſound is more hollow.

† We were preſent at the ceremony on the 1ſt of *February*, 1790, when the firſt ſkull we ſaw was that of a woman, who had been buried but a few months before. It was then dug up for the firſt time by her daughter. This office, we are told, is always performed by the women, whichever ſex the ſkull belongs to. A man in a fantaſtic habit officiates as prieſt.

‡ We are informed, that a party of *Malays* had once landed at *Nancowry*, to commit depredations, and were cut off to a man by the enraged inhabitants. A ſimilar inſtance of their vengeance is ſaid to have happened at the iſland *Carnicobar*, when they put to death ſome ſailors who were plundering their houſes, and probably attempting to violate their women.

and

and the quarrel immediately becomes general. In theſe caſes, they terminate their differences in a pitched battle, where the only weapons uſed are long ſticks, of a hard and knotty wood. With theſe they drub one another moſt heartily, till, no longer able to endure the conflict, they mutually put a ſtop to the combat, and all get drunk again.

ON THE LORIS, OR SLOW-PACED LEMUR.—*See the Works of Sir William Jones, Vol. I. p.* 548.

ASTRONOMICAL OBSERVATIONS MADE IN THE UPPER PARTS OF HINDUSTA'N, AND ON A JOURNEY THENCE TO OUJEIN.

By WILLIAM HUNTER, *Eſq.*

BEFORE delivering the following obſervations, it will be proper to give ſome account of the inſtruments, with which they are made. The altitudes for determining latitudes and time, were taken with a ſextant, of ten inches radius, made by TROUGHTON: the limb is divided into degrees, and thirds of a degree, and the diviſions on the vernier go to half minutes; ſo that, by the help of the magnifying lens, a difference of ten ſeconds is ſufficiently perceptible. The two ſpecula, being ſcrewed down in their places, do not (as far as I can diſcover) admit of the principal, or vertical, adjuſtment: but the error was almoſt daily aſcertained by the double menſuration of the ſun's diameter, and conſtantly allowed for. It is ſubtractive, and my determination of its quantity varied from 2′ 30″ to 3′ 30″. Theſe differences may have in part ariſen from a real variation in the quantity of this correction; but I aſcribe them chiefly to ſome inaccuracy in my menſuration of the ſun's diameter. To form ſome judgement of the influence this cauſe might have, I have examined twenty-three of thoſe meaſurements, made between the 7th of *March* and the 7th of *June* (being all of which I have any record), by taking the medium of the ſun's diameters as meaſured on the limb, to the right and left of zero, and comparing it with the diameter for that day, as laid down in the *Ephemeris*. It will appear, from a liſt of thoſe obſervations, that my meaſurements commonly exceeded thoſe given in the *Ephemeris*; but the greateſt exceſs was 25″.

MENSURATIONS OF THE SUN'S DIAMETER.

1792.	*Adjuſtment of Sextant. Subtract.*	*Difference of the Sun's diameter, meaſured from that in the Ephemeris.*
March 7	2′ 34″	+ 8′
9	3 —	+ 14
11	2 30	+ 14
13	2 52	+ 24
15	3 15	+ 1
17	3 15	+ 3
18	3 7	+ 10
19	3 15	+ 3
20	3 7	+ 25
21	3 15	+ 4
22	3 15	+ 20
23	3 22	+ 12
24	3 8	+ 13
25	3 15	+ 7
28	3 15	+ 9
31	3 15	+ 10
April 1	3 15	+ 11
3	3 15	+ 12
10	3 30	— 3
11	3 15	+ 15
17	3 —	+ 5
May 29	2 37	— 7
June 7	2 52	+ 1

Theſe menſurations may have a farther uſe, beſides aſcertaining the adjuſtment of the quadrant. If the eye could determine, with perfect accuracy, the contact of the limbs, the mean between the two meaſurements of the ſun's diameter would be exactly equal to his apparent diameter, as determined by calculation, and given in the *Ephemeris*; but, from the imperfection of our organs, it happens, that the limbs will ſometimes

ſometimes appear to be in contact, when a little ſpace remains between them; at others, when they overlap one another: in the former caſe, the diameter will appear greater, in the latter, leſs than the truth. But it is probable, that at nearly the ſame period of time, the ſtate of the eye, or of the ſenſorium, by which we judge of this contact, is, in the ſame perſon, nearly the ſame. Of this I have made ſome trials, and found, that when the ſun's diameter, by my menſuration, differed from that in the *Ephemeris*, on repeating the menſurations, at ſhort intervals, the difference remained nearly the ſame. Therefore, if we obſerve the ſun's altitude, a little time before or after meaſuring his diameter, the contact of the limbs will, probably, appear to take place, in the ſame real ſituation of thoſe limbs, as when we meaſured the ſun's diameter. But here, the effect of too open, or too cloſe, obſervation will be reverſed; the former making the altitude appear leſs, the latter greater than the truth. Theſe meaſurements then may be applied, as corrections of the obſerved altitude. Thus, if the diameter of the ſun has appeared too great, add the quantity of its exceſs to the angle obſerved, between the ſun and his image in *Mercury*; if it appeared too ſmall, ſubtract the defect, to give the true angle. Thus, *March* the 13th, the error of the ſextant was 2′ 52″, to be ſubtracted. But the meaſurement of the ſun's diameter exceeds the truth, by 24″. Therefore, this quantity is to be added to the obſerved angle, the obſervation being, probably, ſo much too open.

The angle between the ſun and his image in quickſilver, that day at noon, was			123°	33′ 45″
Error Sextant	—	2′ 52″		
Do. Obſervation	+	0 24		
Diff.				— 2 28
			2) 123	31 17
			61	45 38, 5
Diff. refr. and parallax				— 26, 5
			61	45 12
Sun's Semidiameter			+	16 7
			62	1 19
Sun's Declin. South			+ 2	36 23
Co-Latitude			64	37 42
Latitude of *Burwa Sagur*			25	22 18

which is 13″ leſs than in the following liſt, where this error was not allowed for.

The

The ſecondary, or horizontal, adjuſtment, made by a ſmall ſcrew at the fore-part of the little ſpeculum, was, from time to time, carefully attended to.

The altitudes were taken by means of the image in quickſilver, which, if the ſun was the object, was defended from the wind by covering of thin gauze, as recommended by Mr. BURROW in the firſt volume of the *Aſiatick Reſearches*. When the altitude of a ſtar was to be taken, this method did not anſwer; as it rendered the image too obſcure. A thick cloth was therefore properly diſpoſed to windward of the mercury.

The ſmall teleſcope belonging to the ſextant was uſed in all the obſervations.

As the inſtrument is only graduated to 125 degrees, I could not take altitudes exceeding 62 degrees. While the ſun's meridian altitude could be obſerved, I have preferred it, for the latitude: but, as this was ſoon about to be impracticable, I began, on the 29th of *February*, to compare the latitudes by meridian altitude, with thoſe obtained from two altitudes and the elapſed time, by the rule in the requiſite tables, in order to judge how far the latter might be depended on. The reſult of the compariſon, which appears in the obſervations from that time to the 15th of *March*, determined me to truſt to thoſe double altitudes, while they could be taken within the preſcribed limits; at the ſame time, comparing them occaſionally with obſervations by a fixed ſtar. From the firſt of *April*, I was obliged to truſt entirely to the ſtars; and to make the obſervations by them as accurate as poſſible, I have, when circumſtances would allow, taken the meridian altitude of one to the north, and another to the ſouth, of the zenith. The teleſcope is an achromatick, made by DOLLAND, of twenty-eight inches focal diſtance. It inverts the object, and magnifies eighty times.

The watch is made by BROOKBANK, with horizon balance wheel, and continues to go while winding up. To determine, as accurately as poſſible, the time of an obſervation, I took equal altitudes of the ſun, on the days preceding and following it, and, having thus found the quantity gained or loſt in twenty-four hours, applied to the time of obſervation a part proportional to its diſtance from the preceding or following noon. In this calculation, allowance was made for the difference of longitude (aſcertained by geometrical ſurvey) if the altitudes on the two days were taken at different places. Beſides this I have, when I had the opportunity, taken the altitudes of two fixed ſtars, one to the eaſt, and another to the weſt of the meridian, within an hour before or after the obſervation, and calculated the time from them.

OBSER-

1791-2	PLACE.	Sun or Star	Latitude.	REMARKS.
May 24	*Agra*; Monument of *Taj Mahl*,	α ♍	27 10 00	doubtful.
25	Ditto,	α ♍	27 10 11	diſtinct.
Nov. 1	*Lucnow*; Mr. Taylor's Houſe,	☉	26 51 9	clear.
24	*Futtehgurh*; Mr. Phillips's Bungalow, near the centre of cantonments,	☉	27 21 5	cloudy.
25	Ditto,	☉	27 21 54	clear.
26	Ditto,	☉	27 22 46	ditto
28	Ditto,	☉	27 21 44	ditto
Dec. 4	*Gureiah* Village, bearing N ½ E ¼ mile,	☉	27 28 42	ditto
9	Ditto,	☉	27 29 11	ditto
Jan. 24	*Dehliah*; near the Bungalow,	☉	27 21 5	
25	*Nawabgunge*; bg. E. diſt. 3 furl.	☉	27 26 12	
26	*Allygunge*; Moſque, S 72 E	☉	27 30 00	
27	*Doomree*; Fort, S 22 E diſt. 2¼ f.	☉	27 32 41	clear, windy.
28	*Sukheet*; NW 2½ f.	☉	27 25 15	Sun had begun to fall.
29	*Giroul*; Fort, S 10 W 1½ f.	☉	27 11 13	
30	*Shekohabad*; *Agra*-gate, S 55 E 7 f.	☉	27 6 58	
Feb. 1	*Feerozabad*; Gate, S E 3 f.	☉	27 9 14	
2	*Eätumadpoor*; Tank, S 67 W 2 f.	☉	27 14 7	
3	*Agra*; Monument of *Taj Mahl*.	☉	27 10 28	
9	Ditto,	☉	27 10 38	
20	Camp at *Gober Chokey*,	☉	27 9 23	cloudy.
21	Ditto,	☉	27 9 51	clear.
23	*Baad*; bearing N 2 E diſt. 3 f.	☉	27 3 23	
24	*Munniah*; S 30 W - - - 1	☉	26 49 48	
25	*Dholpour*; S 8 W - - - - 3	☉	26 41 41	
27	*Choola*; Fort, N 44 W 3	☉	26 37 25	a cloud came over the ſun before he reached the Meridian.
28	*Noorabad*; Garden, S 3 E 2	☉	26 24 17	clear, windy.
29	*Gualior*; Hill, S 3 E—S 45 E.	☉ M. A.	26 15 7	
	Ditto,	☉ 2 A.	26 15 38	
Mar. 2	Ditto,	☉ M. A.	26 14 48	
6	*Antery*; Fort, S 10 W diſt. 4 f.	☉ M. A.	26 4 20	
7	*Dibborah*,	☉ M. A.	25 53 43	
	Ditto,	☉ 2 A.	25 53 51	
8	*Ditteah*, S 32 E diſt. 3¾ miles,	☉ M. A.	25 43 1	
	Ditto,	☉ 2 A.	25 43 9	
9	Ditto, *Rajah*'s Houſe, NW 3 f.	☉ M. A.	25 39 44	
	Ditto,	☉ 2 A.	25 39 27	
11	*Jhanſy*; S E angle fort, N 88 E 2½ f.	☉ M. A.	25 27 56	
	Ditto,	☉ 2 A.	25 28 1	
12	Ditto,	☉ M. A.	25 27 45	
13	*Burwah-Sagur*; Caſtle, N 51 E 7½ f.	☉ M. A.	25 22 31	
	Ditto,	☉ 2 A.	25 21 16	
14	Ditto,	☉ M. A.	25 22 31	clear.

1792.	PLACE.	Sun or Star.	Latitude.	REMARKS.
Mar. 15	*Pirtipoor*; N 89 W—N 18 E 1½ f.	☉ M. A.	25 12 53	
	Ditto,	☉ 2 A.	25 12 33	
16	*Bumaury*; N 2 W—N 42 W 1½ f.	☉ 2 A.	25 2 6	
17	*Belgaung*; N 1 f.	☉ 2 A.	24 53 11	
18	*Teary*; N 55 E 2	☉ 2 A.	24 43 30	
19	*Marouny*; Fort, S 75 E 2	☉ 2 A.	24 35 1	
20	*Sindwaha*; N 55 E 2	☉ 2 A.	24 31 34	
21	*Narat*; Temple of Hanumân, S 14 E 3½.	☉ 2 A.	24 24 25	
	Ditto,	β U. M.	24 24 40	
22	*Maltown*; Fort, N 14 E diſt. 10 f.	☉ 2 A.	24 17 30	
23	*Khémláſah*; N 48 E—N 57 W 2	β U. M.	24 13 44	
24	*Rámpoor*; N 5 E—N 43 W	☉ 2 A.	24 6 18	
	Ditto,	α ♍	24 7 25	windy.
25	*Koorwey*; Fort, N 42—52 W 3	☉ 2 A.	24 7 34	
26	*Kirwah*; cloſe to the village,	☉ 2 A.	23 57 31	
27	*Bajouda*; N 35 W 3	☉ 2 A.	23 53 25	windy.
	Ditto,	β U. M.	23 40 56	cl. moderate, a diſt. obſerv.
28	North Bank *Calcutta* River,	☉ 2 A.	23 41 48	
29	*B'helſah*, S 56 C 4	☉ 2 A.	23 31 19	
	Ditto,	β U. M.	23 32 1	clear, calm.
30	Ditto,	β U. M.	23 31 39	
31	Ditto,	α ♏	23 32 5	
April 1	*Goolga g*; N 58 E 2	☉ 2 A.	23 31 33	clear, moderate.
	Ditto,	β U. M.	23 28 46	clear, calm.
2	*Amáry*; N 67 E 2	β U. M.	23 25 24	
	Ditto,	α ♏	23 24 29	
4	*Bopaul*; *Futtehgurh Fort*, S 62 68 W 1 mile,	β U. M.	23 15 46	
	Ditto,	α ♏	23 16 35	
5	Ditto,	β ♎	23 15 58	
7	*Pundah*; N 42 E—S 82 E 1 f.	β U. M.	23 13 50	
	Ditto,	α ♏	23 13 45	
8	*Sehone*; S 85 E 2½	α ♏	23 12 00	
9	*Furher*; N 28—55 W 4½	β U. M.	23 14 5	
10	*Shujawulpoor*; N 18 W—N 80 E 3	β U. M.	23 24 54	
11	*Beinſroud*; N 64 E—S 65 E 1	α Hydræ	23 25 54	
12	*Shahjehanpoor*; S 83 W	α Hydræ	23 26 9	
	Ditto,	β U. M.	23 25 46	
13	*Turána*; N 70 W 3½	α Hydræ	23 20 2	
	Ditto,	β U. M.	23 19 39	
14	*Tajpoor*; cloſe to the village,	α Hydræ	23 14 47	
	Ditto,	β U. M.	23 13 1	
15	*Oujein*; near RAÑA KHAN's Garden,	α Hydræ	23 12 9	
16	Do. Do.	α Hydræ	23 12 13	
	Do. Do.	β U. M.	23 10 58	
18	Do. Do.	α Hydræ	23 12 13	
19	Do. Do.	β U. M.	23 10 50	
23	Do. Do.	α ♍	23 11 28	
May 29	Do. houſe near SCINDIAH's Pal.	α ♏	23 11 8	
June 14	Do. Do.	α ♏	23 10 4,	

Eclipſes of JUPITER's SATELLITES, *obſerved with* DOLLAND's *achromatic Teleſcope, magnifying eighty Times.*

Apparent Time.				*Sate*	*Im. or Em.*	*PLACE OF OBSERVATION.*	*Longitude.*	*WEATHER.*	*REMARKS.*
1791.	D.	H.	′ ″				° ′ ″		
May	11	11	58 56	1	Em.	*Agra*; Monument *Taj Mahl*, -	78 11 00	clear, windy.	
	18	7	44 24	2	Em.	Ditto, - - -	77 58 00	clear, moderate.	
	26	10	22 10	2	Em.	Ditto, - - -	78 22 00	ditto ditto	
June	19	10	25 26	1	Em.	Ditto, - - -	78 27 15	ditto ditto	N. B. The immerſion alſo happened ſome minutes earlier than it ought, agreeably to the longitude commonly aſſigned to *Agra*.
	24	10	13 41	3	Em.	Ditto, - - -	77 20 30	ditto ditto	
Dec.	27	17	17 42	3	Em.	*Futtehgurh*; Mr. Phillips's Bungalow	79 28 15	ditto ditto	
	31	16	13 26	2	Im.	Ditto, - - -	79 1 30	ditto ditto	
1792.									
Jan.	17	17	6 53	1	Im.	Ditto, - - -	79 32 45	cloudy, calm.	
	26	13	24 8	1	Im.	*Allygunge*, - - -	79 00 30	clear, calm,	a diſtinct obſervation.
Feb.	1	15	27 52	2	Im.	*Feerozabad*, - - -	78 13 15	ditto ditto	
	2	15	12 32	1	Im.	*Eätumádpoor*, - -	78 1 30	ditto ditto,	Teleſcope ſomewhat unſteady.
	8	17	57 17	2	Im.	*Agra*; Monument *Taj Mahl* -	77 33 00	thin clouds, calm,	Day beginning to break.
	9	17	4 19	1	Im.	Ditto, - - -	77 41 30	clear, calm.	
	18	13	27 1	1	Im.	Ditto, - - -	77 47 30	a little hazy, calm,	a diſtinct obſervation.
Mar.	15	10	33 48	3	Im.	*Pirtipoor*, - - -	77 29 15	clear, calm.	
		12	31 48	3	Em.	Ditto, - - -	77 52 00	ditto ditto	
	21	10	7 5	1	Im.	*Narat*, - - - - -	78 2 00	ditto ditto	
	22	9	23 58	2	Im.	*Maltown*, - - - -	77 56 15	ditto ditto	
	28	12	2 4	1	Im.	N. Bank, *Calcutta*, R. - -	77 44 15	ditto ditto,	a diſtinct obſervation.
	29	11	57 13	2	Im.	*Bhélſah*, - - - -	77 22 45	ditto ditto,	Planet at the inſt. of immerſion ſomewhat obſcure.
April	5	14	31 52	2	Im.	*Bopaul*, - - - -	77 9 45	ditto ditto,	Planet too near the moon.
	6	8	26 6	1	Im.	Ditto, - - -	77 24 30	ditto ditto,	Moon near: thin haze near the horizon.
	13	10	17 23	1	Im.	*Turána*, - - - -	76 10 15	ditto ditto,	Satell. immerged cloſe to Jupiter's body.
	20	14	22 18	1	Em.	*Ugein*; near Rana Khan's Garden,	76 19 00	clear, windy.	
	22	8	48 49	1	Em.	Ditto, - - -	75 43 30	clear, moderate.	
	23	11	27 55	2	Em.	Ditto, - - -	75 49 00	ditto ditto	
	29	10	44 42	1	Em.	Ditto, - - -	75 29 00	ditto ditto	
	30	14	4 25	2	Em.	Ditto, - - -	75 46 45	ditto ditto	
May	6	21	40 21	1	Em.	Ditto, - - -	75 51 15	ditto ditto	
	13	14	36 11	1	Em.	Ditto, - - -	76 7 45	ditto ditto	
	15	9	3 22	1	Em.	Ditto, - - -	75 46 00	ditto ditto,	Time from obſerv. of Regulus—Time from eq. alt. of ☉ on 14th & 16th.
		9	2 28				*75 32 30		
	29	12	52 41	1	Em.	*Ugein*; Houſe near Scindiall's -	76 00 56	hazy.	Satel. emerg. very dim.
June	7	9	14 21	1	Em.	Ditto, - - -	75 55 00	clear, moderate.	Obſervation very diſtinct.
	14	11	7 49	1	Em.	Ditto, - - -	75 56 00	ditto ditto,	Ditto.

*** Not having the Opportunity of comparing theſe Obſervations with contemporary ones, taken at *Greenwich*, or at Places the Longitudes of which from that Obſervatory are aſcertained, I have conſidered the Times of the Eclipſes given in the EPHEMERIS as accurate, and thence deduced the Longitude from *Greenwich*.

LATITUDES OBSERVED IN UPPER HINDUSTAN.

1792.	PLACE.	Sun or Star.	Latitude.	REMARKS.
Oct. 7	*Oujein*, Camp at SHAH DAWUL's Durgah	⊙ M. A.	23 12 4	clear, calm
8	Ditto, Ditto, - - - -	ditto.	23 11 45	
1793.				
Feb. 24	Ditto, Camp near RANA KHAN's Garden, - - - -	ditto.	23 11 30	
March 13	Ditto, Camp at Unk-Pat - -	α Hydræ.	23 14 2	
14	*Gutteah*, - - - -	α Hydræ.	23 23 55	
15	*Tenauriah*, - - - -	ditto.	23 36 10	
16	*Ager*, - - - -	ditto.	23 43 48	
17	*Soosner* (N 10 68 W. dist. 2 fur.) -	Sirius.	23 56 47	med. 23° 57′ 21″
		α Hydræ.	23 57 56	
18	*Perawa*, - - - -	Sirius.	24 9 11	med. 24° 9′ 14″
		α Hydræ.	24 9 18	
19	*Soonél* (N 18 W dist. 3. 58 fur.) -	Sirius.	24 22 11	
21	*Julmee* (from S to S 35 W dist. 2. 33 fur.)	α Hydræ.	24 36 4	
22	*Mucundra*, - - - -	α Hydræ.	24 49 27	
23	*Puchpahar* (N 10 E dist. 4. 5 f.) -	β U. M.	24 59 39	
24	*Anandpoor*, - - - -	ditto.	25 6 40	med. 25° 7′ 5″
		α ♍	25 7 31	
25	*Kotah* (Camp near *Bag-Dur-waza*) -	β U. M.	25 11 41	
28	*Gaumuch* (S 77 E dist. 3 f.) - -	ditto.	25 16 56	
29	*Teekeree* (S 10—60 W dist. 1 f.) - -	β U. M.	25 20 53	
30	*Boondee* (*Rajah's Mahl* N 42 W) - -	ditto,	25 26 38	
31	*Dublana* (from S to S 80 E dist. 1 fur.)	ditto,	25 35 45	
April 1	*Doogáree* (S W) - - -	ditto,	25 40 00	
2	*Barmen-gaung* (E to S 15 E dist. 1 fur.)	ditto,	25 45 8	cloudy, uncertain
3	*Ooniara* (S to S 63 E dist. 7 f.) - -	ditto,	25 53 8	ditto, ditto
4	Ditto, - - -	ditto,	25 54 53	clear med. 25°55′4″
6	Ditto, - - -	ditto,	25 55 15	clear, mod.
8	*Burwárah* (S 22 E to N 47 E dist. extremes, 2 f.) - - -	ditto,	26 3 31	ditto, ditto
9	*Bhugwunt-gurh* (N 30—85 W. dist. 3 f.)	ditto,	26 9 16	ditto, ditto
10	*Kheernee* (S 30—82 E dist. 1 f.) - -	ditto,	26 16 9	ditto, ditto
11	*Mulárna* (S 57—80 W dist. 3. 2 f.) -	ditto,	26 19 9	ditto, windy
12	*Amergurh* (S 20 E dist. 2 f.) - -	ditto,	26 27 9	ditto, moderate
13	*Khooſh-hal-gurh* (N 55—65 E dist. 4 f.	α Hydræ.	26 28 9	ditto, ditto med. 26°28′22″
	Ditto, - - -	β U. M.	26 28 34	
14	*Peelaudoh* (N 60—80 E dist. 3 f.) -	α Hydræ.	26 35 54	ditto, ditto med. 26°36′16″
	Ditto, - - -	β U. M.	26 36 39	
15	*Hindoun* (N 12 W to N 80 E dist. nearest 1 f.) - - - -	α Hydræ.	26 43 24	clear, moderate med. 26°43′31″
	Ditto, - - -	β U. M.	26 43 39	
16	*Surout* (S 48 W to W distant 2. 6.) -	β U. M.	26 49 2	ditto, ditto med. 26°48′54″
	Ditto, - - -	β ♎.	26 48 39	
17	*Biána* (S 32 W to S 48 E dist. 1 f.) -	α Hydræ.	26 55 40	ditto, ditto med.
	Ditto, - - -	β U. M.	26 55 9	ditto, wind 26°55′24″
18	*Rudáwul* (N 5—50 W dist. 2 f. -	α Hydræ.	26 58 25	ditto, moderate
19	*Kánua* (S 69 E to N 88 E dist. 3 f.) -	ditto,	27 2 25	ditto, ditto med. 27°2′10″
	Ditto, - - -	β U. M.	27 1 55	
20	*Futtehpoor* (Camp within *Chun-nunpooree Durwaza*) - - - -	α Hydræ.	27 5 55	ditto, ditto med. 27°5′43″
"	Ditto, - - -	β U. M.	27 5 32	

ECLIPSES OF JUPITER'S SATELLITES IN UPPER HINDUSTAN.

Apparent Time.	*Satel.*	*Im. or Em.*	*Place of Observation.*	*Longitude.*	*Weather.*	*REMARKS.*
1793. D. H. M. S.				° ′ ″		
Mar. 24 12 48 26	1	Im.	*Anandpoor*, - -	75 25 30	clear, mod.	
30 13 16 29	2	Im.	*Boondee*, - - -	75 6 15	ditto, ditto	
31 14 43 35	1	Im.	*Dublana*, - -	75 15 45	ditto, ditto	
April 6 10 55 26	3	Em.	*Ooniara*, - - -	76 25 45	ditto, ditto	The satellite had emerged some time before I perceived it,
— 15 54 6	2	Im.	Ditto, - - -	75 41 45	ditto, ditto	By observations of Procyon and Arcturus, at ½ past 9 P.M. watch slow 10′ 56″, and by this the time is adjusted. But on the 7th at 7½ A. M. by the Sun, watch slow, only 8′ 5″, being 2′ 51″ gained in 10 hours If we allow a proportionable gain to the time of immersion —1′ 49″, the time was 15° 52′ 17″ and Longitude 75° 14′ 30″.
9 11 11 26	1	Im.	*Bhugwunt-gurh*, - -	76 2 30	ditto, ditto	
13 13 1 8	3	Im.	*Khoosh-hal-gurh*, - -	75 57 30	ditto, ditto	Med. 76.3.
— 14 54 38	3	Em.	Ditto, - - -	76 8 30		
16 13 10 24	1	Im.	*Surout*, - - -	76 51 30	ditto, ditto	
May 9 13 27 45	1	Im.	*Agra*, Rozeh *Taj Mahl*,	77 36 45	ditto, ditto	

1793. Feb. 25th, at *Oujein*, Moon eclipsed.

At 3 P.M. watch by the Sun	10′ 58″	flow	med. 10′ 30″
At 12¼ P.M. by Procyon	9 59	do.	
At 14¼ by Lyra	10 32	do.	
By Watch	14° 14′ —″		
	+ 10 30		

Apparent Time, 14 24 30 A slight obscurity began on the Moon's N.E. limb.

h. ′ ″	
14 18 —	
+ 10 30	
14 28 30	Dark shadow distinctly seen to enter.
17 00 00	
+ 10 30	
17 10 30	Eclipse ended—Limb clear.

If we reckon the beginning of the eclipse from the first perceptible obscurity; i. e. 14 24 30
Then beginning by *Ephemeris* 9 23 45

Diff. of Long. in time - 5 00 45 75° 11′ 15″

But, reckoning from the entrance of the dark shadow, the difference is - - 5 4 45 76° 11′ 15″

The end, by observation -	17 10 30	
By *Ephemeris* - -	12 6 30	
	5 4 00	76° 00′ 00″
Beginning of obscurity -	14 24 30	
End - - - -	17 10 30	
Middle - - -	15 47 30	
Ditto by *Ephemeris* - -	10 45 15	
	5 2 15	75° 33′ 45″
Duration observed - -	2 46 00	
By *Ephemeris* - -	2 42 45	
Excess of observation - -	00 3 15	

As the state of the limbs at the times marked as the beginning of obscurity and end of the eclipse were similar; if we add half this difference (1′ 37″) to the first of these times, and subtract it from the last, we shall have the beginning - - 14° 26′ 7″
End - - - - - 17 8 53
Either of which will give the longitude 75 35 40

REMARK

REMARK BY THE PRESIDENT.

THE obſervations, with which Mr. HUNTER has favoured us, will be a valuable acquiſition to all *Indian* geographers and antiquaries; for, ſince *Ujjayinì*, or *Ujjein*, is in the firſt meridian of the *Hindus*, its longitude aſcertains the poſition of *Lancá* on the equator, and fixes the longitude, at leaſt according to the *Hindu* aſtronomers, of *Curucſhétra Vatſa*, the Pool *Sannihita Cánchí*, and other places, which are frequently celebrated in *Sanſcrit* books of the higheſt antiquity. Hence alſo we ſhall poſſibly aſcertain the ſeven *dwípas*, which, on the authority of PATANJALI and of the *Véda* itſelf, we may pronounce to be neither the *ſeven planets* nor the *ſeven climates*, but great *peninſulas* of this earth, or large tracts of land with *water on both* ſides of them: for example, in a preface to the *Súrya Siddhánta*, the peninſula, called *Sálmala*, is declared to be 422 *Yójanas* to the eaſt of *Lancà*; now a true *Yójana* is equal to $4\frac{1}{4}$ geometrical miles; and the longitude of *Sálmala* will thus bring us to the Gulph of *Siam*, or to the eaſtern *Indian* peninſula beyond *Malacca*. There is a paſſage in one of the *Puránas*, which confirms this argument; where king SRA'VANA is deſcribed "on the *White Mountain* in the extenſive region of *Sálmaladwipa*, meditating on "the traces of the divine *foot*, at a place called *the ſtation of* TRIVICRAMA:" now we are aſſured by credible travellers, that the *Siameſe* boaſt of a rock in their country, on which a *footſtep*, as they ſay, of VISHNU is clearly diſcernible.

QUESTIONS AND REMARKS ON THE ASTRONOMY OF THE HINDUS.

By JOHN PLAYFAIR, A.M. *Profeſſor of Mathematicks, at Edinburgh.*

Written 10th of October, 1792.

PRESUMING on the invitation given with ſo much liberality in the Advertiſement prefixed to the ſecond volume of the *Aſiatick Reſearches*, I have ventured to ſubmit the following queries and obſervations to the Preſident and other Members of the learned Society in *Bengal*.

I.

Are any Books to be found among the Hindus, *which treat profeſſedly of Geometry?*

I am led to propoſe this queſtion, by having obſerved, not only that the whole of the *Indian* Aſtronomy is a ſyſtem conſtructed with great *geometrical* ſkill, but that the *trigonometrical* rules, given in the tranſlation from the *Súrya Siddhánta*, with which Mr. DAVIS has obliged the world, point out ſome very curious theorems, which muſt have been known to the author of that ancient book. The rule, for inſtance, by which the trigonometrical canon of the *Hindu* aſtronomers is conſtructed *, involves in it the following theorem: "If there be three arches of a "circle in arithmetical progreſſion, the ſum of the ſines of the two extreme arches "is to twice the ſine of the middle arch, as the co-ſine of the common difference "of the arches to the radius of the circle." Now this theorem, though not difficult to be demonſtrated, is yet ſo far from obvious, that it ſeems not known to the mathematicians of *Europe* till the beginning of the laſt century, when it was diſcovered by VIETA. It has ever ſince been uſed for the conſtruction of trigonometrical tables, as it affords a method of calculating the ſines and arches much eaſier than that which depends on ſucceſſive extractions of the ſquare root. To find that this theorem was known to the *Bráhmens* many ages ago, is therefore extremely curious; and the more ſo, becauſe there is ſome reaſon to think that the commentator on the *Siddhánta*, quoted and tranſlated by Mr. DAVIS †, did not underſtand the principle of this rule, ſince the method which he lays down is entirely different, much leſs profound in theory, and much more difficult in practice. If this be true, it indicates a retrograde order in the progreſs of eaſtern ſcience, which muſt have had its origin in a very remote age.

II.

Are any books of Hindu *Arithmetick to be procured?*

It ſhould ſeem, that if ſuch books exiſt, they muſt contain much curious information, with many abridgments in the labour of calculating, and the like; all which may be reaſonably expected from them, ſince an arithmetical notation, ſo perfect as that of *India*, has exiſted in that country much longer than in any other;

* 2 Aſiatick Reſearches, 245. † P. 246, 247.

but

but that which moſt of all ſeems to deſerve the attention of the learned, is, the diſcovery ſaid to be made of ſomething like *Algebra* among the *Hindus*; ſuch as the expreſſion of number *in general* by certain ſymbols, and the idea of negative quantities. Theſe certainly cannot be too carefully enquired into; and will, it is hoped, be conſidered by the Society at *Calcutta* as a part of that rich mine from which they have already extracted ſo many valuable materials. The problem mentioned by Mr. BURROW * proves, that the *Hindus* have turned their attention to certain arithmetical inveſtigations, of which there is no trace in the writings of the *Greek* mathematicians.

III.

Muſt not a complete tranſlation of the Súrya Siddhánta *be conſidered as the grand* deſideratum *with reſpect to* Indian *Aſtronomy?*

Sir W. JONES gives us reaſon, I think, to hope, that this will be executed by Mr. DAVIS; and the ſpecimen which that gentleman has exhibited, leaves as little reaſon to doubt of his abilities to tranſlate the work accurately, as of the great value of the original: I have therefore only to expreſs a wiſh, that if there be any diagrams in the *Súrya Siddhánta*, they may be carefully preſerved.

IV.

Would not a Catalogue Raiſonné, *containing an enumeration, and a ſhort account of the* Sanſcrit *books on* Indian *Aſtronomy, be a work highly intereſting and uſeful?*

V.

Might not an actual examination of the heavens, in company with a Hindu *Aſtronomer, to aſcertain all the* ſtars *and* conſtellations, *for which there are names in* Sanſcrit, *prove a moſt valuable addition to our knowledge of* Indian *Aſtronomy?*

Let me here take the liberty of reminding the Preſident of his promiſe to make ſuch an examination; by which the miſtakes concerning the *Indian* Zodiack, ſome of which he has already pointed out, may be deciſively corrected.

* 2 Aſiat. Reſ. 495.

VI. *May*

VI.

May it not be of conſequence to procure deſcriptions of the principal aſtronomical buildings *and* inſtruments *of which any remains are ſtill to be found, and which are certainly known to be of* Hindu *origin?*

Under this head I would comprehend not only ſuch works as the *Obſervatory* at *Benares*, which is well deſcribed by Sir ROBERT BARKER, but alſo ſuch inſtruments as the *Aſtrolabe*, mentioned by Mr. BURROW in the Appendix to the ſecond volume of the *Aſiatick Reſearches*; and engravings of ſuch inſtruments will be neceſſary to accompany the deſcriptions.

Though, in the preceding queſtions, there may be nothing that has eſcaped the attention of the Society in *Bengal*, yet they will, perhaps, be forgiven to one who feels himſelf deeply intereſted in the ſubject to which they relate, and who would not loſe even the feebleſt ray of a light, which, without the exertions of the *Aſiatick* Society, muſt periſh for ever.

REMARK BY THE PRESIDENT.

WE ſhall concur, I am perſuaded, in giving our publick thanks to Profeſſor PLAYFAIR for the Queſtions which he has propoſed; and in expreſſing our wiſh, that his example may be followed by the learned in *Europe*. Conciſe anſwers to his queries will be given in my next annual diſcourſe; the ſubject of which will compriſe a general account of *Indian* aſtronomy and mathematicks. I would long ago have accompliſhed my *deſign* (which I never meant as a *promiſe* to be performed in all events) of examining the heavens in company with an intelligent *Hindu* aſtronomer, if ſuch a companion could have been found in this province; but, though I offered ample ſtipends to any *Hindu* aſtronomer who could name, in *Sanſcrit*, all the conſtellations which I ſhould point out, and to any *Hindu* phyſician who could bring me all the plants named in *Sanſcrit* books, I was aſſured by the *Brâhmen* whom I had commiſſioned to ſearch for ſuch inſtructors, that no *Pandit* in *Bengal* ever pretended to poſſeſs the knowledge which I required. Lieut. WILFORD, however, has lately favoured me with a *Sanſcrit* work, procured by him at *Benares*, containing the names, figures, and poſitions of all the aſteriſms known to ancient or modern *Hindus*, not only in the Zodiack, but in both hemiſpheres, and almoſt from

pole

pole to pole. That work I tranſlated with attention, and immediately conſigned it to Mr. DAVIS, who, of all men living, is the beſt qualified to exhibit a copious and accurate Hiſtory of *Indian* Aſtronomy.

DISCOURSE THE ELEVENTH; ON THE PHILOSOPHY OF THE ASIATICKS.—*See the Works of Sir William Jones, Vol. I. p.* 159.

THE unfortunate death of Sir *William Jones*, on the 27th of *April*, 1794, having deprived the Society of their Founder and Preſident, a meeting of the Members was convened on the 1ſt of *May* following, when it was unanimouſly agreed to appoint a Committee, conſiſting of Sir *Robert Chambers*, Mr Juſtice *Hyde*, Colonel *John Murray*, *John Briſton*, and *Thomas Graham*, Eſquires, to wait on Sir JOHN SHORE, and in the name of the Society, requeſt his acceptance of the office of their Preſident. With this requeſt he, in terms highly flattering to the Society, agreed to comply; and on the 22d of *May*, 1794, took his ſeat as Preſident, and delivered the following Diſcourſe,

A DISCOURSE DELIVERED AT A MEETING OF THE ASIATICK SOCIETY.—*See the Works of Sir William Jones, Vol. I. p. i.*

A SY-

A SYNOPSIS OF THE *DIURNAL* AND *SEPTENARY CHANGES* OF THE *BAROMETER.*

		☉			☾							●							☽							☉		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A. M.		29.97	29.99	29 93			29.97	30. 2		29.89	29.86	29.83	29.79	29.86	29.81		29.85		29.91			29.78	29.84	29.81				29.82		29.85	
	I	.97	.97	.93	29.85	29.94		. 2	29 85	.87		.83	.79	.84	.89	29 92			.91	29.90		.78	.84	.85	29 85		.84		29.84	.85	
		.97	.97		.85			. 0	.94		.86	.83							.88			.78	.84			.84	29.81		.84	.85	
	II	.97				.94		. 0		.86		.83		.83			.85			.88	29.80	.78		.85			.81				
		.96				.94						.83	.79	.83	.89	.90					.79				.88	.84		.81	.84	.83	29.80
	III	.96		.92		.92	.94												.88				.80	.85	.88	.84					.80
		.95	.97			.92	.94				.84						.85	29.79		.88					.88		.91	81			.80
	IV	.95	.97			.92	.94	29.98	.92		.83	.83				.88		.79	.88	.87	.79	.78		.85	.88			.81			
		.95		.92	.85			.98			.83			.83	.89			.79												.80
	V	.95		.92	.85				.92								.84	.79					.80			.84	.81		.86	.83	
			.97				.94	.98	.92	.86			.79								.79			.85	.88						.80
	VI					.94			.92		.83	.83		.84		.88	.84		.83	.86		.78		.85		.88		.85	.88	.83	.80
			.97		.85	.94	.96	30. 1		.88	.85		.79	.87	.93	.88	.84		.88	.86	.81			.87	.92		.85	.86			
	VII			.92	.86	.94	.98	. 2	.94	.90		.83	.81	.88	.95	.89	.83		.90	.88		.79	.84	.88				.88	.90	.84	.80
			30. 1		.88	.96	.98	. 3		.92	.88	.83	.85	.98	.97		.83	.83	.96	.88	.85	.82			.94		.87		.93		.80
	VIII	30. 1	. 2	.91			.98		.96	.93	.90	.83	.85		.99	.93	.84	.85	.98	.89	.87	.85	.88	.90		.92		.90	.93	.85	.80
		. 3	. 3		.90	.99		. 4	.96			.82		.90		.94	.84		.98		.87		.88		.97	.92	.89	.92	.93	.86	.82
	IX	. 3	. 4	.94	.91	30.	30. 1	. 4	.96		.92	.82	.88	.90	.30	.94	.84	.86	.98	.90		.85	.89		.97		.90		.94	.87	.82
		. 4	. 4	.94	.93	30.	. 1	. 4			.93	.82	.88	.92	.30	.94	.84	.86	.95	.90	.88	.85	.89	.94	.9	.93			.94	.87	
	X	. 4	. 4	.94	.93	30.	. 1	. 5	.96	.93		.82	.88	.92	.30	.95	.84		.95	.90	.89	.85	.89			.93	.90		.94	.87	.83
		. 4	. 4	.94	.94	30.	. 1	. 5	.96	.93	.93	.81	.88	.92	.30	.95	.84	.86	.95	.88			.89	.93	.98		.90	.92	.94	.87	.85
	XI	. 4	. 4	.94	.94	30.	. 1	. 3	.96	.93	.93	.81	.90	.92	29.98	.95	.84	.86	.95	.87	.83		.89	.94	.96	.93	.90	.92	.94	.8	
		. 4	. 2	.94	.94	30.	. 1		.93		.89	.80		.92	.97	.93	.84	.86			.83	.86	.87	.94		.90				.85	.82
	XII	. 2	. 2	.94	.94	30.	. 1	. 1	.93		.87	.80	.90	.90	.95	.93	.84	.86	.82	.85		.86	.87	.92	.9	.89		.90		.85	
P M.			30.		.94		29.89	30. 1	.93	.90		.80		.89	.95		.84	.84		.81		.85		.90		.87		.90			.80
	I	30.		29.93		29.96	.87	29.99	.93		29.84	.79	.86	.89	.95	.89	.84	.82	.92	.82		.82	.85		.91				.85	
		29.99	29.97		.90	.94	.87	.95	.91	.86	.85	.78	.84	.87	.92	.89		.81	.88	.82	29.81	.80	.83	.90		.85	.84	.86	.83		.80
	II	.97	.96	.91	.90	.94		.94	.89	.86	.85	.77	.82	.87	.90	.87	.83	.80	.88	.82	.79						.81	.82	.83	.81	.80
		.97	.95	.91	.89	.93	.86	.94	.89	.85	.85	.77	.82	.85	.90	.87		.80		.82	.79	.80	.80	.90	.90	.83	.81	.82	.83	.81	
	III	.96	.94	.88	.88	.92	.84	.92	.85	.85	.85	.77	.82	.84	.89	.87		.80	.86	.82		.80	.79	.88	.88	.83	.81	.81	.83		.80
			.93	.88			.84	.91		.85	.85		.78	.84	.88	.87		.80		.82	.79	.79	.79	.87	.85		.81	.81	.83	.81	
	IV	.96	.93	.86	.88	.90	.84	.91		.85	.84			.82	.88		.82	.80			.78	.79	.79	.85	.85	.81	.81	.81		.81	.80
				.86			.84		.84		.84		.78			.87	.81			.82							.80		.83		
	V	.96				.90		.91										.80						.85	.85						
			.93	.86						.85					.88						.78					.81	.80	.81	.83		.80
	VI	.96	.93	.86		.90		.91	.84	.85				.82		.87		.79			.78	.79	.79		.85	.81	.80		.83		
		.96	.93	.86		.90		.91	.85	.85				.82	.88	.87				.82		.82	.79	.85	.85	.81	.81	.81	.83		.80
	VII	.95		.85		.90		.91	.85						.92	.87		.79			.78	.82	.79	.85	.88	.81		.82	.83	.81	
		.97	.93	.85		.91	.89		.85	.85								.79	.88		.78	.82			.89	.81		.85			.84
	VIII	.98	.93	.85	.91	.90	.89			.85				.95		.87		.79	.89	.80	.78	.82	.80	.85	.90	.81	.83	.86	.83		.85
		.98	.94	.85		.90			.85	.85		.88	.86	.95	30. 7		.80		.90	.80		.83	.83	.88	.92	.81	.83	.86	.86		.85
	IX	.99	.94	.90		.95	30.	.93	.87	.86		.90	.95	95	30.	.87		.86	.91	.80	.78	.84	.85	.94	.97	.83	.83	.86		.83	
		.99				.97	30.	.95	.89	.88	.85	.82		.95	29.77	.87		.86	.91		.78	.84		30.	.99	.84	.83	.86	.88		.85
	X	.99	.95	.90		.97	30.	.97	.88	.88	.87				30.	.85		.90	.91	.87	.78	.84		30.	.96	.85	.83			.83	
		.99	.95			.97	30. 2	.97				.82		.93	29.99			.90					.79	30.		.85	.83		.88		
	XI	.99		.89	.94	.97	30. 2			.88		.79	.91		.96	.85			.91	.80							.83				.85
		.99											.88	.93	.94	.85		.94			.78	.84	.79		.84		.83	.86			
	XII		95			.97	30. 2	.97	88	.88	.85	.79	89	.93	.94	.85	.80	94	91	.81	.78		.79	29.94	.84	.85	.82	.86			.83

CALCUTTA.

			d.		h.	m.				d.	h.	m.		
New Moon,	March	31,	-	1	15	P. M.	Laft Quarter,	April	23,	-	6	42	P. M.	1794.
Firft Quarter,	April	7,	-	11	15	A. M.	New Moon,	April	29,	-	9	53	P. M.	
Full Moon,	April	15,	-	4	0	P. M.								

A TREATISE ON THE BAROMETER.

By FRANCIS BALFOUR, *Esq.*

I.

IN a Treatiſe, publiſhed at this place a few weeks ago, on Sol-Lunar Influence in Fevers, I have endeavoured to ſhew, " *That all Fevers are liable to certain diurnal and ſeptenary* * *revolutions; and that theſe revolutions are uniformly and conſtantly connected with fixed periods of time.*

II.

HAVING eſtabliſhed this propoſition (I.), it was natural to ſuppoſe that the power or influence which is capable of producing theſe very remarkable and intereſting revolutions on the human conſtitution, at certain intervals, did not exert itſelf without effecting, at the ſame time, ſome correſponding periodical change in the ſtate of that element in which we conſtantly exiſt; and in which all the operations of life and nature are carried on.

Other neceſſary avocations having hitherto prevented me from being able to make thoſe experiments myſelf that are required for deciding on this queſtion, I applied to Mr. FARQUHAR, who, I underſtood, had paid ſome attention to this ſubject; and was favoured with the following very obliging and inſtructive letter:

To DOCTOR BALFOUR.

DEAR SIR,

" YOU likewiſe deſire me to give you ſome account of the regular diurnal variations of the Barometer which take place in this country; and which, I ſaid, I conceived to be peculiar to tropical climates, from the otherwiſe unaccountable ſilence of every author whoſe work I had been able to conſult on the ſubject. The firſt intimation of this was from Mr. HENRY TRAIL, who informed me that he had obſerved the Mercury to riſe every night till about eleven o'clock, when it became ſtationary. I immediately repeated his obſervations, and found that the fact

* That is to ſay, changes happening after an interval of ſeven or eight days.

was

was certain; but that there was likewiſe another diurnal variation, which had eſcaped his notice. After numerous obſervations, at all hours during the day and night, I found that the Mercury is ſubject to the following variations, with the utmoſt degree of regularity, throughout the whole year. From ſix in the morning till between ſeven and eight, it is ſtationary; it then riſes till nine, ſometimes, though rarely, till ten, when it remains ſtationary till noon; it then deſcends, and is loweſt at three, and continues ſtationary till eight; when it begins to riſe, and continues till eleven, and is then at the ſame height that it was at nine in the morning.

On relating the above obſervations to the late Colonel PEARCE, an indefatigable and rigidly accurate obſerver, and who had devoted much time and attention to Barometrical purſuits, he was ſurpriſed that ſuch regular variations of the Mercury ſhould have eſcaped his obſervation: but ſome time after, with great candour, acknowledged the certainty of the fact, and framed an hypotheſis to account for it; which you will probably be able to obtain on an application to Captain GRACE.

To me the phenomena appear inexplicable to any hypotheſis that I can think of. The periods are evidently connected with the earth's diurnal motion; and, if we had not a ſatellite, might be eaſily explained by the atmoſpherial tides cauſed by the ſun. But when we find that the Barometer is not, in the leaſt obſervable degree, affected by the moon's paſſage over the meridian, or by the united action of the ſun and moon at the ſyzygies, we have abſolute proof that this cannot be the cauſe; neither can the expanſion of the Mercury, being directly oppoſite to the phenomena, the greateſt degree of heat taking place at three o'clock, when the Mercury is loweſt.

With reſpect to the influence of the moon on the atmoſphere, I was perfectly ſatisfied while in *Beerboom*, that the cold ſeaſon ſet in at the ſyzygies only; and that there was always a conſiderable increaſe of cold at every return of them. But at the old powder-works near *Calcutta*, I obſerved the greateſt degree of cold to happen ſometimes at the quadratures. Being, however, at that time much engaged in other purſuits, I did not attend to the circumſtance of the moon's *abſolute diſtance*, though of the utmoſt conſequence in all calculations of the heights of the tide, to which the variations of the ſtate of the atmoſphere, occaſioned by the attraction of the ſun and moon, muſt be analogous. And yet this fact, important as it is to every ſea-faring perſon, eſpecially in river-navigations, as well as to ſhip-builders, for predicting the higheſt ſpring-tides, ſeems to be totally unknown to the generality of

of theſe perſons; nor is it ſurprizing, as it is not taken notice of in any treatiſe on navigation that I have met with. But M. De la Lande (Aſtronomy, vol. iii. p. 656.) ſhews, that if the moon's mean force to raiſe the waters of the ocean be two and a half, her greateſt force when *Apogee*, will be three; and her leaſt when *Perigee*, two: a difference ſufficient to account for the tides at the quadratures being ſometimes nearly as high as thoſe at the ſyzygies: a circumſtance which was aſcertained by part of a committee inſtituted for examining plans for new powder-works at the Old Fort Ghaut; where ſtakes had been driven, on purpoſe to find the riſe of the tide. M. De la Lande confirms the theory by many obſervations, made with great accuracy in ſome of the ports of France (Supplement, vol. iv.); and I can vouch for the fact by numerous meaſures of the heights of the tide, both at the old and new powder-works. But you may eaſily ſatisfy yourſelf of the fact, by obſerving the height of a few tides at Champaul Ghaut, when you will find, invariably, that every great parallax of the moon, at the ſyzygies, is attended with a very high tide and ſtrong bore; and *vica verſa*. I have not been able to obſerve, that the moon's declination, notwithſtanding what you may have heard from other quarters, has any perceptible effect on the tides.

I have been the more particular on this ſubject, as I have heard it made an unanſwerable objection to your ſyſtem, that the firſt attacks of intermittent fever do happen at the quadratures as well as the ſyzygies; and that relapſes do likewiſe happen at the quadratures. Now, ſhould you meet with any ſuch caſes, the above obſervations may perhaps tend to reconcile them to your ſyſtem, &c.

Banky Baza, 12th Feb. 1794. John Farquhar.

III.

Although in this letter Mr. Farquhar deſcribes in the Barometer only *three* different diurnal periods of riſing and falling, I could not help ſuſpecting that there muſt likewiſe be a *fourth*, which had eſcaped his notice; and that I ſhould be able to diſcover a periodical falling alſo in the ſtate of the mercury, between eleven at night and ſix in the morning, analogous to that which he had obſerved between eleven at mid-day and ſix in the evening. Accordingly, by keeping myſelf awake, and continuing my obſervations during the night, I have now the ſatisfaction to be aſſured that my anticipation of the revolution I expected to diſcover, was perfectly juſt.

IV.

With a view of aſcertaining the progreſs of theſe *four* different revolutions by perſonal obſervation, I impoſed upon myſelf the taſk of obſerving and recording the changes of the Barometer, as far as I was able, every half-hour, day and night, during the period of one complete lunation.

The reſult of this undertaking I have now the honour to lay before the Society; and if in matter or form it contains any thing worthy of their attention, or of a place amongſt their Reſearches, it will afford me a degree of ſatisfaction that will more than reward me for my labour.

I. *Of the Periodical Diurnal Changes of the Barometer.*

THE DETAIL OF FACTS.

V.

THE Detail of Facts is comprehended in the following record of obſervations made on the Barometer, as regularly as I was able to perform it, every half-hour, both day and night, during the lunation which intervened between the 31ſt of *March* and the 29th of *April* 1794. To theſe I have added the ſtate of the *Thermometer* and *Wind*, with the *appearance* of the ſky.

VI.

My obſervations of the *Barometer* were taken with ſcrupulous exactneſs; and although the weighty hand of ſleep has more than once deprived me of obſervations that I was juſt about to make, and was anxious to record, I have never ventured to aſſume any probable ſtate of the Mercury as an actual obſervation.

VII.

With reſpect to the *Thermometer*, although it was liable to ſome inaccuracy from my not being able to preſerve the apartment in which it was hung, uniformly open or ſhut, yet, as the variations from this cauſe were trifling, and never obſcured the regular and progreſſive riſe and fall which it obſerves at different periods of the day, I conceive that my record is ſufficiently exact for enabling me to decide, with ſafety,

ſafety, that the daily fluctuations which appeared in the Barometer, were *not* connected with the daily viciſſitudes of heat and cold.

VIII.

Although the ſtate of the *wind* was not meaſured by any inſtrument, but eſtimated only groſsly by the effect which it appeared to produce on the trees and other objects around, ſtill I conceive that I may alſo venture to determine on this ground, that the diurnal fluctuation of the Mercury was *not* connected with the ſtate of the wind.

In the column appropriated for recording the ſtate of the wind, *Number* 1 repreſents a breeze capable of carrying on a ſhip two or three miles in the hour; *Number* 2, a breeze capable of carrying on a ſhip four or five miles; and *Number* 3, a breeze capable of carrying on a ſhip ſix, ſeven, or eight miles.

IX.

Neither are the *appearances of the ſky* defined with much preciſion or minuteneſs; yet, upon the deſcription that I have given, I think I may pronounce with ſufficient confidence, that they did *not* direct or regulate the periodical diurnal fluctuation of the Barometer.

By conceiving the wind, which in the month of *April* is generally from ſome point in the ſouth, carrying conſtantly along with it, in the different degrees of velocity I have deſcribed (VIII.) different proportions of light and heavy clouds, we may obtain a tolerably juſt idea of the appearance of the ſky at *Calcutta* during that month.

To expreſs theſe different ſtates, we have employed in the record the terms *clear*, *cloudy*, and *overcaſt*. When few clouds only appear, or none, which is ſeldom the caſe at this ſeaſon, the ſky is ſaid to be *clear*; when the ſun or ſtars ſhine through a number of clouds, the ſky is ſaid to be *cloudy*; and when the ſun or ſtars do not appear at all, the ſky is ſaid to be *overcaſt*.

N. B. As the record of obſervations from which theſe negative propoſitions (VII. VIII. IX.) reſpecting the *thermometer*, *the ſtate of the wind*, and *appearance of the ſky* are inferred, is voluminous, and would neceſſarily exclude from this volume of the Reſearches matter that is much more intereſting, it has been conſidered ſufficient for the object of this paper, to inſert only the oppoſite abſtract, or *Synopſis*, of the obſervations made on the Barometer.

THE STATEMENT.

XI.

The ſum of my obſervations reſpecting the four Periodical Diurnal Revolutions of the Barometer which I have deſcribed, appears at one view in the preceding Synoptical Arrangement, and when ſtated preciſely in numbers, amounts to this:

1ſt, That on every day of the thirty comprehended in the Record, excepting one *, the Barometer conſtantly *fell* between ten at night and ſix in the morning; and that progreſſively, and without any intermediate riſing, excepting in one inſtance †.

2d, That on every day of the thirty comprehended in the Record, without one exception, the Barometer conſtantly *roſe* between ſix and ten in the morning; and that progreſſively, and without any intermediate falling, excepting in two inſtances ‡, §.

3d, That on every day of the thirty comprehended in the Record, without one exception, the Barometer conſtantly *fell* between ten in the morning and ſix in the evening; and that progreſſively, and without any intermediate riſing in any inſtance.

4th, That on every day of the thirty comprehended in the Record, excepting two ‖, **, the Barometer conſtantly *roſe* between ſix and ten in the evening; and that progreſſively, and without any intermediate falling in any inſtance.

THE INFERENCE.

XII.

From the preceding ſtatement of the coincidences obſerved in theſe four portions of the day, it appears that we may reaſonably infer the following propoſitions, limited to *Calcutta* in the month of *April* 1794.

1ſt, That, in the interval between ten at night and ſix in the morning, there exiſted a *prevailing tendency* in the Mercury to *fall*.

* Between the 20th and 21ſt—*Vide* Synopſis.
† Between the 22d and 23d — ditto.
‡ On the 11th - - — ditto.
§ On the 23d — *Vide* Synopſis.
‖ On the 15th — ditto.
** On the 20th — ditto.

2d, That,

2*d*, That, in the interval between ſix and ten in the morning, there exiſted a *prevailing tendency* in the Mercury to *riſe*.

3*d*, That, in the interval between ten in the morning and ſix in the evening, there exiſted a *prevailing tendency* in the Mercury to *fall*.

4*th*, That, in the interval between ſix and ten in the evening, there exiſted a *prevailing tendency* in the Mercury to *riſe*.

Theſe different prevailing tendencies to riſe and fall periodically at certain times of the day and night, neceſſarily imply a proportionate correſponding cauſe ſufficient to produce them. But here we ſtop, and venture to proceed no farther than to ſay, with Mr. FARQUHAR, that they ſeem to be connected with the diurnal revolutions of the planet which we inhabit.

XIII.

By an attentive examination of the Synopſis, it will appear that the general characters of the tendencies which prevail at the different periods we have deſcribed, are liable, within their reſpective limits, to ſeveral remarkable *variations*, viz.

1. With regard to *the time of beginning* to riſe or fall.
2. With regard to *the time of ceaſing* to riſe or fall.
3. With regard to *the ſteps or degrees* by which the Mercury riſes or falls.
4. With regard to the *limits or extremes* to which it riſes or falls.

Being under the neceſſity of acknowledging our ignorance of the cauſe which produces theſe *prevailing tendencies themſelves*, we can of courſe have no adequate idea or conception in theory of the different circumſtances that are capable of producing the different *variations* which appear in their general character; and our obſervations being much too limited to eſtabliſh, concerning them, any thing like practical rules, we muſt remain contented for the preſent with pointing them out as queſtions which want inveſtigation: expreſſing however a ſtrong ſuſcipion that they are not unconnected with the relative poſitions of the Moon, and the other planets.

THE APPLICATION.

XIV.

At the time of digeſting the ideas which I have delivered upon this ſubject, being poſſeſſed of no information but that which was communicated in Mr. FARQUHAR's letter,

letter, and what I obtained afterwards from my own obſervations, I did not conceive that I was authorized to extend the propoſitions which I have advanced (XII.) reſpecting theſe tendencies, beyond the limits of *Calcutta*. By a note, however, which is juſt now pointed out to me in Dr. MOSELEY's very ingenious Treatiſe on Tropical Diſeaſes*, I have the ſatisfaction to find that the very ſame tendencies have been obſerved to prevail on the oppoſite ſide of the globe. We may therefore now venture to allow them a more extenſive range; and it will, no doubt, be conſidered as ſome importance to eſtabliſh in certain latitudes† the exiſtence of a law in nature by which the Mercury of the Barometer, let the ſtanding weight and preſſure of the atmoſphere be what it may, is liable to the effects of a conſtant and regular periodical diurnal fluctuation; for it will then follow *that* the power of each ſucceeding hour to raiſe or ſink it, is liable to differ from that which went before; *that* the height of the Mercury, therefore, taken only at two or three ſtated hours of the day, cannot with propriety be aſſumed to repreſent or form a juſt eſtimate of the whole twenty-four; *that* calculations proceeding hitherto on ſuch partial grounds, muſt neceſſarily include error and require adjuſtment, and *that* in future, wherever this law extends, no correct philoſophical inveſtigation connected with the nature of the atmoſphere, can be carried on without giving it a place ‡; and no *juſt prognoſtic* formed of the weather without diſtinguiſhing thoſe regular and conſtant changes from ſuch as are only occaſional and temporary.

* The Note referred to in Dr. MOSELEY's Treatiſe is this:—"It has been obſerved in theſe and more equatorial regions, that though the barometer is uſeleſs in indicating the variations of the weather, it exhibits a phenomenon not correctly aſcertained in temperate climates; which is that the Mercury has two diurnal motions of aſcent and deſcent, of nearly a line correſponding with the courſe of the ſun; aſcending as the ſun approaches the zenith and nadir, and deſcending as the ſun deviates from theſe points. It remains ſtationary at its loweſt and higheſt degrees for ſome hours."

† As far as I can judge from the following extract from Father COTTE's Memoir on the prevailing Winds, &c. &c. which I have juſt met with in the *Edinburgh Magazine* for *March* 1792, there ſeems to be great reaſon to believe, that ſimilar fluctuations take place in the Mercury, in the different latitudes of *Europe*; and that they are not entirely confined to the regions under the equator.

"The Mercury is generally a little lower about two o'clock in the afternoon than at any other time of the day; and it is higheſt towards eight o'clock at night. I would compare this fact without pretending to draw any conſequences from it, with the phenomenon of the magnetic needle, the greateſt variation of which from north towards weſt takes place about two or three in the afternoon, and the leaſt about eight o'clock in the morning." —Vide the *Edinburgh Magazine* for *March* 1792, page 211. par. 6.

‡ A mean, extracted from means obtained from the extremes of theſe different diurnal fluctuations, will give the mean weight of the atmoſphere much more correctly than the common proceſs.

With

WITH reſpect to Medicine, this law is a principle entirely new; and it has now become a matter of real conſequence, to aſcertain in what reſpects it co-operates with the power of the ſun and moon in producing and regulating the paroxyſms of fevers. From the ſtriking coincidence of *theſe tendencies* with the periods at which the paroxyſms of fevers generally attack and remit, and from their ſuperior prevalence in tropical climates where the paroxyſms of fever are alſo moſt prevalent, "*it ſeems to be highly probable that they may have a conſiderable ſhare in conſtituting that power which ſhews itſelf in ſo remarkable a manner in this country, and which we have denominated Sol-Lunar Influence.*"

II. *Of the Periodical Septenary Changes of the Barometer.*

XV.

RESPECTING periodical ſeptenary changes in the ſtate of the Barometer, the only information I have been able to obtain, is extracted from an abridged Expoſition of the Syſtem of Mr. TOALDO upon the probability of the change of weather by the lunar points taken from the *Journal des Sciences Utiles*, and publiſhed in the *Calcutta Magazine* for *July* and *Auguſt* 1793. Mr. TOALDO, it appears, in order to aſcertain whether the moon had any influence on the Mercury, collected a journal of the Barometer kept for ſeveral years, from which he diſcovered that the Barometer was ſix-tenths of a line higher at the times of the quadratures than at the ſyzygies.

If this journal was kept correctly on a proper plan, periodical ſeptenary changes in the Barometer connected with the revolutions of the moon, are eſtabliſhed of courſe. *But* if it was kept in the ordinary way of aſſuming two or three obſervations taken in the courſe of the day, to ſerve as a ſtandard or rule for eſtimating the ſtate of the whole twenty-four, it is evidently *liable* to errors which render the calculation precarious and inconcluſive for the reaſons already explained, which however had not occurred to me at the time of writing my laſt Treatiſe on Sol-Lunar Influence.

That the Barometer will be differently affected at the ſprings and neaps, is an anticipation which has in its favour the ſtrongeſt probability that analogy can afford. Yet, upon a review of the obſervations collected during the ſprings and neaps of the lunation which I have obſerved, I cannot ſay that, when arranged as they ſtand in the Synopſis, in coincidence with their reſpective periods, they exhibit a difference

difference of character to eſtabliſh this concluſion. We therefore leave it to the deciſion of a far more extenſive experience, conducting its obſervations on a plan ſimilar to that which we have exemplified in this Treatiſe.

In looking over Dr. MOSELEY's Treatiſe on this occaſion, I am ſorry to diſcover that truſting too much to memory, in referring to his work in my laſt publication, I have given a very imperfect account of what he has communicated on the ſubject of Sol-Lunar Influence. But when he conſiders that by my inaccuracy I have deprived myſelf of the weight of his authority in ſupporting a propoſition I was anxious to eſtabliſh, he will be inclined to aſcribe it to the cauſe I have ſtated. Dr. MOSELEY's obſervations are contained in the *Concluſion* to his Treatiſe, between page 550 and 556; they confirm the power of Sol-Lunar Influence in Europe in a very unequivocal manner, and merit the attention of thoſe who wiſh for information on the ſubject.—For the note to which this remark refers, vide page 714.

ON THE DUTIES OF A FAITHFUL HINDU WIDOW.

By HENRY COLEBROOKE, *Eſq.*

WHILE the light which the labours of the *Aſiatic Society* have thrown on the ſciences and religion of the *Hindus*, has drawn the attention of the literary world to that ſubject, the hint thrown out by the Preſident for rejecting the authority of every publication preceding the tranſlation of the *Gítá*, does not appear to have made ſufficient impreſſion. Several late compilations in *Europe* betray great want of judgment in the ſelection of authorities; and their motley dreſs of true and falſe colours tends to perpetuate error; for this reaſon it ſeems neceſſary on every topic, to revert to original authorities for the purpoſe of cancelling error or verifying facts already publiſhed; and this object will no way be more readily attained than by the communication of detached eſſays on each topic, as it may preſent itſelf to the Orientaliſt in the progreſs of his reſearches.

From this or any other motive for indulgence, ſhould the following authorities from *Sanſcrit* books be thought worthy of a place in the next volume of the Society's Tranſactions, I ſhall be rewarded for the pains taken in collecting them.

" Having firſt bathed, the widow, dreſſed in two clean garments, and holding ſome " *cúſa* graſs, ſips water from the palm of her hand. Bearing *cúſa* and *tila* * on her " hand, ſhe looks towards the eaſt or north while the *Bráhmana* utters the myſtic

* *Seſamum.*

" word

" word *Om.* Bowing to *Nerayana*, ſhe next declares *: " On this month, ſo named " in ſuch a *Pacſha*, on ſuch a *tit'hi*, I (naming herſelf and her † family) that I " may meet ARUNDHATI ‡ and reſide in *Swarga*; that the years of my ſtay may be " numerous as the hairs on the human body; that I may enjoy with my huſband the " felicity of heaven, and ſanctify my paternal and maternal progenitors, and the an- " ceſtry of my huſband's father; that lauded by the *Apſaraſes*, I may be happy " with my lord, through the reigns of fourteen INDRAS; that expiation be made " for my huſband's offences, whether he has killed a *Bráhmana*, broken the ties of " gratitude, or murdered his friend, thus I aſcend my huſband's burning pile. I " call on you, ye guardians of the eight regions of the world! Sun and Moon! " Air, Fire, Æther §, Earth, and Water! My own ſoul! *Yama!* Day, Night, and " Twilight! And thou, Conſcience, bear witneſs: I follow my huſband's corpſe " on the funeral pile ‖."

Having repeated the *Sancalpa*, ſhe walks thrice round the pile; and the *Bráh-* " *mana* utters the following *Mantras:*

" Om! Let theſe women, not to be widowed good wives, adorned with collyrium, holding clarified butter, conſign themſelves to the fire. Immortal, not childleſs, nor huſbandleſs, excellent, let them paſs into fire, whoſe original element is water. From the *Rigvéda.*

" Om! Let theſe wives, pure, beautiful, commit themſelves to the fire, with " their huſband's corps. *A Pauránica Mantra.*

" With this benediction, and uttering the myſtic *Namó Namah*, ſhe aſcends the " flaming pile."

While the preſcribed ceremonies are performed by the widow, the ſon, or other

* This declaration is called the *Sancalpa.*

† *Gótra*, the family or race. Four great families of *Bráhmanas* are now extant, and have branched into many diſtinct races. Since the memorable maſſacre of the *Cſhatriyàs*, by *Paraſu Ràma*, the *Cſhatriyàs* deſcribe themſelves from the ſame *Gótras* as the *Bràhmanas.*

‡ Wife of VASISHT'HA.

§ *Acàſa.*

‖ In ſeveral publications the woman has been deſcribed as placing herſelf on the pile before it be lighted; but the ritual quoted is conformable to the text of the *Bhàgavata.*

" When the corpſe is about to be conſumed in the *Sahótaja* *, the faithful wife who ſtood without, ruſhes on the fire." NA'REDA to YUDISHT'HIRA.

* Cabin of graſs or leaves, ſometimes erected on the funeral pile. " The ſhed on the funeral pile of a MUNI' is called PARN'O'TAJA and SABO'TAJA." See the vocabulary entitled HA'RA'BALI'.

near kinſman, of the deceaſed, applies the firſt torch, with the forms directed for funeral rites in the *Grìhya* *; by which his tribe is governed.

The *Sancalpa* is evidently formed on the words of ANGIRAS';

"The wife who commits herſelf to the flames with her huſband's corpſe, ſhall "equal ARUNDHATI', and reſide in *Swarga*;

"Accompanying her huſband, ſhe ſhall reſide ſo long in *Swarga* as are the thirty-"five millions of hairs on the human body.

"As the ſnake-catcher forcibly drags the ſerpent from his earth, ſo, bearing her "huſband from hell, with him ſhe ſhall enjoy heavenly bliſs.

"Dying with her huſband, ſhe ſanctifies her maternal and paternal anceſtors; "and the anceſtry of him to whom ſhe gave her virginity.

"Such a wife, adoring her huſband, in celeſtial felicity with him, greateſt, moſt "admired †, with him ſhall enjoy the delights of heaven while fourteen INDRAS "reign.

"Though her huſband had killed a *Bráhmana* ‡, broken the ties of gratitude, or "murdered his friend, ſhe expiates the crime." ANGIRAS.

The *Mantras* are adopted on the authority of the BRAHME *Purana*.

"While the pile is preparing, tell the faithful wife of the greateſt duty of wo-"man, *ſhe is loyal and pure who burns herſelf with her huſband's corpſe*. Hearing this, "fortified (in her reſolution) and full of affection, ſhe completes the PITRI'MHEDA "*Yaga* § and aſcends to *Swarga*." BRAHME *Purana*.

It is held to be the duty of a widow to burn herſelf with her huſband's corpſe; but ſhe has the alternative,

"On the death of her huſband, to live as *Brahmachàrì*, or commit herſelf to "the flames." VISHNU.

* Extracts or compilations from the ſacred books, containing the particular forms for religious ceremonies, to be obſerved by the race or family for whom that portion of the ſacred writings has been adopted, which compoſes their *Grihya*. We learn from the *Bhágavata* that VYA'SA divided the *Véda* into four (*Rich*, *Yajuſh*, *Sáman*, and *At'harvan*) or five, including the *Itihàſas* or other *Puranas* as one *Véda*. PAILA accepted the *Rigvéda*; JAIMENI and CAVI, or SUCRA, the *Sámavéda*; BAISAMPAYANA learned the *Rajurvéda*; SAMUNTU, DARUNA, and others of the family of ANGIRAS, the *At'harvavéda*. "My father (SUC'HA, ſon of VYA'SA ſpeaks) ſelected the *Itihàſas* and *Puránas*; then the ſeveral *Riſhis* choſe the "*Védas* variouſly (parts of each). Their pupils, the ſucceſſors of their pupils, and the "pupils of theſe, became followers of particular *Sác'ha's*."

† The word in the text is expounded "lauded by the choirs of heaven, *Gandharvas*," &c.

‡ The commentators are at the pains of ſhewing that this expiation muſt refer to a crime committed in a former exiſtence; for funeral rites are refuſed to the murderer of a *Brahmána*.

§ Act of burning herſelf with her huſband.

The

The auſterity intended conſiſts in chaſtity, and in acts of piety and mortification.

" The uſe of *Tambúla*, dreſs, and feeding off veſſels of tutenague is forbidden to " the *Yati* *, the *Brahmachàrì*, and the widow. PRACHE'TAS.

" The widow ſhall never exceed one meal a-day, nor ſleep on a bed: if ſhe do " ſo, her huſband falls from *Swarga*.

" She ſhall eat no other than ſimple food, and † ſhall daily offer the *tarpana* " of *cúſa*, *tila*, and water ‡.

" In *Vaiſác'ha*, *Cártica*, and *Mágha* ſhe ſhall exceed the uſual duties of ablution, " alms, and pilgrimage, and often uſe the name of GOD in prayer."

The *Smríti*.

After undertaking the duty of a *Satí*, ſhould the widow recede, ſhe incurs the penalties of defilement.

" If the woman, regretting life, recede from the pile, ſhe is defiled; but may " be purified by obſerving the faſt called *Pràjàpatya* §." APASTAMBA.

Though an alternative be allowed, the *Hindu* legiſlators have ſhown themſelves diſpoſed to encourage widows to burn themſelves with their huſband's corpſe.

HA'RI'TA thus defines a loyal wife: " She, whoſe ſympathy feels the pains and " joys of her huſband; who mourns and pines in his abſence, and dies when he " dies, is a good and loyal wife. *Hárita*.

" Always revere a loyal wife, as you venerate the *Dévatás*; for, by her vir- " tues, the prince's empire may extend over the three worlds."

MATSYA *Puràna*.

" Though the huſband died unhappy by the diſobedience of his wife: if from " motives of love, diſguſt of the world, fear of living unprotected, or ſorrow, " ſhe commit herſelf to the flames, ſhe is entitled to veneration."

Mahá Bhárata.

Obſequies for ſuicides are forbidden; but the *Rigvèda* expreſsly declares, " that " the loyal wife who burns herſelf, ſhall not be deemed a ſuicide. When a

* *Sannyasì*.

† If ſhe has no male deſcendants. See *Madana Parijáta*.

‡ Oblations for the manes of anceſtors to the third degree, though not excluſively; for the prayer includes a general petition for remoter anceſtors. Yet daily oblations *(Vaiſvédéva)* are ſeparately offered for anceſtors beyond the third degree.

§ It extends to twelve days; the firſt three, a ſpare meal may be taken once in each day; the next three, once in each night; the ſucceeding three days, nothing may be eaten but what is given unſolicited; and the laſt three days are a rigid faſt.

" mourning

" mourning of three days has been completed, the *Srâddha* is to be performed*.
" This appears from the prayer for the occaſion, directed in the *Rigvèda*."

Regularly the chief mourner for the huſband and for the wife, would, in many caſes, be diſtinct perſons: but the BHAVISHYA *Puràna* provides, *that*

" When the widow conſigns herſelf to the ſame pile with the corpſe of the
" deceaſed, whoever performs the *Criyá* for her huſband ſhall perform it for her."

" As to the ceremonies from the lighting of the funeral pile to the *Pinda*;
" whoever lights the pile, ſhall alſo offer the *Pinda*." VA'YU *Puràna*.

In certain circumſtances the widow is diſqualified for this act of a *Satí*.

" She who has an infant child, or is pregnant, or whoſe pregnancy is doubtful,
" or who is unclean, may not, O princeſs! aſcend the funeral pile.

" So ſaid NA'REDA to the mother of SAGARA."

" The mother of an infant ſhall not relinquiſh the care of her child to aſcend
" the pile; nor ſhall one who is unclean (from a periodical cauſe) or whoſe time
" for purification after child-birth is not paſſed, nor ſhall one who is pregnant,
" commit herſelf to the flames †. But the mother of an infant may, if the
" care of the child can be otherwiſe provided." VRIHASPATI.

In the event of a *Bràhmana* dying in a diſtant country, his widow is not permitted to burn herſelf.

" A *Viprà* or *Bràhmana* may not aſcend a ſecond pile." GO'TAMA.

" But with other caſts, this proof of fidelity is not precluded by the remote deceaſe of the huſband, and is called *Anugamana*.

" The widow, on the news of her huſband's dying in a diſtant country, ſhould
" expeditiouſly burn herſelf: ſo ſhall ſhe obtain perfection." VYA'SA.

" Should the huſband die on a journey, holding his *ſandals* to her breaſt, let her paſs into the flames." BRAHME *Puràna*.

The expreſſion is not underſtood of *ſandals* excluſively: for thus USANAS or SUCRA.

" Except a *Viprà*, the widow may take any thing that belonged to her huſband,
" and aſcend the pile.

* The ſhortneſs of the mourning is honourable; the longeſt mourning is for the loweſt tribe.

† It has been erroneouſly aſſerted, that a wife, pregnant at the time of her huſband's death, may burn herſelf after delivery. *Hindu* authorities poſitively contradict it. In addition to the text it may be remarked, that it is a maxim, " What was prevented in its ſeaſon, may not afterwards be reſumed."

" But

" But a *Viprà* may not aſcend a ſecond pile; this practice belongs to other tribes." SUCRA.

In two of the excepted caſes, a latitude is allowed for a widow deſirous of offering this token of loyalty, by poſtponing the obſequies of the deceaſed: for VYA'SA directs that, " If the loyal wife be diſtant leſs than the journey of a day, and deſire " to die with her huſband, his corpſe ſhall not be burnt until ſhe arrive. And " the *Bhaviſhya Puràna* permits that the corpſe be kept one night, if the third day " of her uncleanneſs had expired when her huſband died."

With reſpect to a circumſtance of time *, which might on ſome occaſions be objected, the commentators obviate the difficulty, by arguing from ſeveral texts, " that to die with or after her huſband, is for a widow *Naimittica* †, and *Cámya* ‡, " and conſequently allowable in the intercalary month;" for DACSHA teaches, that " whenever an act both *Naimittica* and *Cámya* is in hand, it is then to be per- " formed without conſulting ſeaſon." They are at the trouble of removing another difficulty:

" DHRITARA'SHTRA, in the ſtate of *Samadhí*, quitted his terreſtrial form to " proceed to the MUCTI, or *beatitude*, which awaited him. When the leaves " and wood were lighted to conſume the corpſe, his wife GA'NDHA'RI' was ſeen " to paſs into the flames. Now alſo, a huſband dying at *Cási* and attaining *Mucti*, " it becomes his widow to follow the corpſe in the flames."

It were ſuperfluous to purſue commentators through all their frivolous diſtinctions and laborious illuſtrations on latent difficulties.

All the ceremonies eſſential to this awful rite are included in the inſtructions already quoted. But many practices have been introduced, though not ſanctioned by any ritual. A widow who declares her reſolution of burning herſelf with the corpſe, is required to give a token of her fortitude: and it is acknowledged, that one who receded after the ceremony commenced, would be compelled by her relations to complete the ſacrifice. This may explain circumſtances deſcribed by ſome who have witneſſed the melancholy ſcene.

Other ceremonies noticed in the relations of perſons who have been preſent on ſuch occaſions, are directed in ſeveral rituals:

" Adorned with all jewels, decked with *minium* and other cuſtomary ornaments,

* Occaſional obſervances are omitted on intercalary days.

† Eventual; incumbent when a certain event happens.

‡ Optional; done for its reward.

" with

" with the box of *minium* in her hand, having made *pújá*, or adoration to the *Dé-*
" *vátás*, thus reflecting that *this life is nought: my lord and maſter to me was all*,—
" ſhe walks round the burning pile: ſhe beſtows jewels on the *Brahmanas*, com-
" forts her relations, and ſhows her friends the attentions of civility; while call-
" ing the Sun and elements to witneſs, ſhe diſtributes *minium* at pleaſure; and
" having repeated the *Sancalpa*, proceeds into the flames: there embracing the
" corpſe, ſhe abandons herſelf to the fire, calling *Satya! Satya! Satya!*"

The bye-ſtanders throw on butter and wood: for this, they are taught, that they acquire merit exceeding ten million fold, the merit of an *Aſwamèdha*, or other great ſacrifice. Even thoſe who join the proceſſion from the houſe of the deceaſed to the funeral pile, for every ſtep are rewarded as for an *Aſwamèdha*. Such *indulgences* are promiſed by grave authors: they are quoted in this place only as they ſeem to authorize an inference, that happily the martyrs of this ſuperſtition have never been numerous. It is certain that the inſtances of the widow's ſacrifices are now rare: on this it is only neceſſary to appeal to the recollection of every perſon reſiding in *India*, how few inſtances have actually occurred within his knowledge. And, had they ever been frequent, ſuperſtition would hardly have promiſed its indulgences to ſpectators.

ON THE TRACES OF THE HINDU LANGUAGE AND LITERATURE, EXTANT AMONG THE MALAYS.

By WILLIAM MARSDEN, ESQ.

THE *Sanſcrit*, or ancient language of the *Hindus*, is a ſubject ſo intereſting in itſelf, that every diſcovery which contributes to throw light upon its hiſtory or to mark its extent, carries with it a degree of importance. The proofs of its influence in the northern countries of *Aſſam*, *Nepal*, *Booten*, and *Tibet*, as well as in the ſouthern parts of the peninſula of *India*, are to be found in the works of the Miſſionaries and the Reſearches of this Society, but the progreſs it made in early times, amongſt the inhabitants of the eaſtern iſlands and countries poſſeſſed by the *Malays*, has not, I believe, been pointed out by any writer. My acquaintance with

with the language of the latter people, together with ſome attention paid to the dialects of *India* in general, have enabled me to obſerve, that the *Malayan* is indebted to the *Sanſcrit* for a conſiderable number of its terms. I have alſo ſatisfied myſelf, that the intercourſe by which this communication was affected, muſt have taken place in times anterior, probably by many centuries, to the converſion of theſe people to the *Mahometan* religion. The language, it is true, abounds at preſent with *Arabic* words, which their writers affect to introduce, becauſe this diſplay of literary ſkill is, at the ſame time a proof of their religious knowledge; but they are generally legal or metaphyſical terms, borrowed from the *Koran* and its commentaries; are never expreſſive of ſimple ideas, have not been incorporated into the language (a few excepted) and are rarely made uſe of in converſation. The *Hindu* words, on the contrary, are ſuch as the progreſs of civilization muſt ſoon have rendered neceſſary, being frequently expreſſive of the feelings of the mind, or denoting thoſe ordinary modes of thought which reſult from the ſocial habits of mankind, or from the evils that tend to interrupt them. It is not however to be underſtood, that the affinity between theſe languages is radical, or that the names for the common objects of ſenſe are borrowed from the *Sanſcrit*. The *Malayan* is a branch or dialect of the widely extended language prevailing throughout the iſlands of the *Archipelago*, to which it gives name *, and thoſe of the *South Sea*; comprehending between *Madagaſcar* on the one ſide, and *Eaſter Iſland* on the other, both incluſive, the ſpace of full two hundred degrees of longitude. This conſideration alone is ſufficient to give it claim to the higheſt degree of antiquity, and to originality, as far as that term can be applied. The various dialects of this ſpeech, though they have a wonderful accordance in many eſſential properties, have experienced thoſe changes which ſeparation, time, and accident produce, and in reſpect to the purpoſes of intercourſe, may be claſſed into ſeveral languages, differing conſiderably from each other. The marks of cultivation by which the *Malayan* is diſtinguiſhed from his ruder neighbours, are to be attributed, in my opinion, to the effects of an early connexion that muſt have ſubſiſted between the inhabitants of this eaſtern peninſula and thoſe of the continent of *India*; but what the nature and circumſtances of this connexion may have been, it is not eaſy to determine. A ſpirit of foreign conqueſt, and ſtill more, a zeal for the propagation of their religious tenets, appear incompatible with the genius of the *Hindu* ſyſtem, except-

* The *Malay-Archipelago* may be underſtood to comprehend the *Sunda*, *Philippine*, and *Molucca* iſlands, in the maritime parts of which, the *Malayan* is uſed as a *lingua franca*.

ing

ing amongſt the diſciples of BHOOD; but I have never diſcovered in the *Malayan* cuſtoms or opinions any traces of the peculiar inſtitutions of that extraordinary ſect.

A commercial intercourſe has always ſubſiſted between the manufacturing countries of *India* and the marts for the produce of the *Spice-iſlands*, ſuch as *Johor*, *Singapoora*, and *Malacca*; and when the *Portugueſe*, at the commencement of the ſixteenth century, firſt viſited theſe places, they mention with ſurprize the concourſe of foreign veſſels aſſembled there. But independently of other objections that might be raiſed to the probability of theſe traders having poliſhed the language of the people whoſe ports they frequented, or having imparted to them their national literature, it is to be obſerved that by much the greater proportion of the ſhips belonging to native merchants, which now enter the ſtraits of *Malacca*, come from the coaſt of *Coromandel*, and conſequently are navigated by perſons who ſpeak the languages prevailing in that part; whereas it is evident, that, from the *Telinga*, or the *Tamool*, the *Malayan* has not received any portion of its improvement, but from the genuine *Hinduvee* of the northern provinces, prior to its debaſement by the mixture of *Arabic* nouns, and the abuſe of verbal auxiliaries. If the communication muſt neceſſarily be ſuppoſed to have its origin in commerce, I ſhould be inclined to conſider the people of *Guzerat*, notwithſtanding their diſtance, as the inſtructors of the *Malays*. Their reſort to *Malacca* is particularly noticed by DE BARROS, and other authentic writers; and it is well known that the *Hindu* language has been preſerved with more purity in that, than in any other maritime province of *India*.

The nature of the affinity ſuggeſted, will ſufficiently appear to thoſe who are converſant with the *Hindu* dialects, by the following examples of *Sanſcrit* words, which are at the ſame time ſo familiar to the *Malays*, and ſo thoroughly incorporated into their vernacular tongue, that their foreign origin is never ſuſpected, although the terms adopted from the *Arabs* can, with very few exceptions, be immediately pointed out by the moſt ordinary ſcholar. It is true that he is aſſiſted in this diſcrimination by the peculiarities of the *Arabic* orthography; for the *Malays*, as well as the *Perſians* and other people, who, in conſequence of their converſion to the faith of the *Koran*, employ this alphabet in their writings, do yet reject the uſe of certain letters, either as ſuperfluous, or as not ſuited to the ſmoothneſs of their own ſounds, and which therefore appear only in words purely *Arabic*. The *Hinduvee* words, on the contrary, being diveſted of their proper dreſs, and clothed, in common with thoſe originally *Malayan*, in the adopted

Arabic

Arabic character (with certain judicious modifications) want the ſame token of their origin, and are more aſſimilated with the reſt of the language.

In this ſhort liſt of words taken, with little pains in the ſelection, from a *Malayan* dictionary, the departure from the *Hinduvee* is ſcarcely more than may ariſe from a different habit of ſpelling them in our letters, unleſs where it conſiſts in a ſlight variation of the ſenſe, or of the part of ſpeech.

Sooka. Fond, pleaſed.	*Baſa.* Language.	*Jaga.* To watch.
Sooka chetha. Pleaſure, joy.	*Bechara.* Advice, counſel, judicial proceeding.	*Pootree.* Princeſs.
Dooka. Sad.	*Beejee.* Seed.	*Rata.* Chariot.
Bagee. To divide.	*Boodee.* Wiſdom, underſtanding.	*Pernama.* Full moon.
Bangſa. Race, family.	*Loba.* Covetous.	*Charee.* To ſeek.

An inſpection of the characters uſed by the natives of the iſlands, who have not adopted the *Malayan* or *Arabic* mode of writing, will ſhew that in the arrangement of their letters they have taken the *Hindu* for their guide, and have even preſerved the rhythmus terminated by a *naſal*; which ſo peculiarly diſtinguiſhes this from every other ſyſtem. The aſpirated letters not being required for expreſſing the ſounds of theſe languages, are omitted, and each diviſion of the ſeries conſiſts therefore of three, inſtead of five. In the *Rejang* alphabet the order is as follows: *Ka, ga, nga*; *Ta, da, na*; *Pa, ba, ma*; *Cha, ja, nia*; &c. (ſee *Hiſtory of Sumatra*, plate.) In the *Sanſcrit*, I need ſcarcely to obſerve, the ſeries of conſonants begins thus, *Ka, k'ha, ga, g'ha, nga*; *Cha, ch'ha, ja, j'ha, gnya*; *Ta, t'ha, da, d'ha, na*, &c. If other proofs were wanting of the influence of *Hindu* intercourſe in theſe parts, ſuch conformity alone, in a matter ſo arbitrary, and which exiſts equally in other obſcure dialects, and extends even to the iſland of *Celebes*, would be ſufficient to eſtabliſh it. The languages of theſe iſlanders have not, however, been enriched by an acceſſion of *Hindu* words in any degree proportioned to the *Malayan*, which uſes the *Arabic* alphabet; but the probability is ſtrong, that the inhabitants of the *Malay* peninſula were in poſſeſſion of an alphabet on the ſame model, and were even ſkilled in compoſition, before the *Mahometans* introduced their learning and character among them.

But the circumſtance which has more immediately ſtruck my attention, and given occaſion to theſe remarks, is that of my having met with frequent alluſion in their writings, to the moſt celebrated works of the *Hindu* mythological poets, eſpecially the *Mahabharat* and the *Ramayan*. A manuſcript now lying before me, which is a ſpecies of romance, exhibits in almoſt every page the marks of the au-

thor's acquaintance with *Hindu* literature and manners. It contains the adventures of two princes, who were ſent by the king their father, to obtain for him the poſſeſſion of an extraordinary ſelf-performing inſtrument of muſic, whoſe enchanting air he had heard in a dream. However flimſy this foundation, and incoherent the parts of its ſuperſtructure, it gives ſcope to the diſplay of a lively and fertile imagination, much delicate imagery, and pathetic expreſſion of ſentiment. The following paſſages allude, unequivocally, to well-known perſonages in the *Poorans*: *Terlaloo baeck ſegala roopa'nia maha-indah ſepartee pandooa leema*; "ſurpaſſing good "was their whole appearance; moſt admirable, like unto the five *Pandoos*." Again: *Lakoo'nia meng-amok eetoo ſepartee pandooa leema tatkala eea meng-amok dedalam rayet kooraoo*; "the manner in which they fought was like that of the five *Pandoos* "when they ruſhed into the ranks of the *Kooroos*." Theſe can be no other than the renowned favourites of KRISHNA, whoſe brilliant actions and perſonal accompliſhments are the theme of immortal ſong. The machinery of the *Ramayan* is interwoven with the ſtory; and this circumſtance tends to increaſe my regret that we poſſeſs no tranſlation, even in abſtract, of that much-admired poem. The *Malayan* princes are, like RAMA, attended in their wars by apes of extraordinary endowments, who fight with more than human proweſs, and overcome the *Rakſaſa*, or hobgoblins, who ſerve under the banners of the adverſary. One of the former, whoſe talents as an ambaſſador are the ſubject of panegyric, is ſaid to reſemble that diplomatic monkey who was ſent by *Sree* Rama to the King of *Langkapooree*. The mixture of qualities and actions gravely attributed to them in their double capacity of monkies and heroes, produces a very ludicrous and amuſing effect. Though their ideas are rational, their manners and propenſities are faithful to nature. Mention is alſo made of *Biſno dewa*; of the mountain *Maha-meroo*; of the blue lotos growing in the pool *Mandoo ratna*; of a lion poſſeſſing ſupernatural powers, *Sing-aſaktee*, and elſewhere *Sing-a-rajoon*, who ſhot arrows at *Maharaja* KARNA. Some of theſe latter names I do not recollect to have met with in the notices we have of the *Hindu* mythology.

Theſe ſimilies and alluſions muſt refer, as in all poetry, to ſtories with which the readers were preſumed to be well acquainted, and ſeem to imply, that tranſlations of the works were formerly in the hands of the *Malays*. I do not know that ſuch remain amongſt them at this day: but my ignorance is no proof of the contrary; for at the time when I had opportunities of making the enquiry, I was uninformed as to the exiſtence of the originals, and the paſſages above quoted were of courſe unintelligible to me. They muſt be ſought for in the peninſula of *Malacca*,

Malacca, or amongſt the *Menangkabon* people in *Sumatra*. A ſpirit of inveſtigation is now gone forth, and under the influence of the *Aſiatick Society*, and from the example of its Preſident, we may confidently hope that no region of oriental literature will be left unexplored.

Since the foregoing Paper was written, and communicated to a few friends, I have ſeen a copy of the third volume of the *Aſiatick Reſearches* (juſt received from Calcutta) and obſerve that the connexion between the *Malayan* and the *Sanſcrit* has not eſcaped the notice of the Preſident, whoſe learned and elegant ANNIVERSARY DISCOURSE points it out in a clear and decided manner. The ſanction of his authority to my opinion fully reconciles me to the anticipation of a ſuppoſed diſcovery.

A CATALOGUE OF INDIAN PLANTS. *See the Works of Sir William Jones, Vol. II. p.* 39.

BOTANICAL OBSERVATIONS ON SELECT INDIAN PLANTS. *See the Works of Sir William Jones, Vol. II. p.* 47.

A DESCRIPTION OF THE CUTTUB MINAR.

By Enſign JAMES T. BLUNT, *of the Engineers.*

THE baſe of the *Cuttub Minar*, is a polygon of twenty-ſeven ſides, and riſes upon it in a circular form; the diminution of the column is in a good proportion. I do not mean to infer, that the architect has followed any eſtabliſhed rule, for it does not appear, that the ancients, in any country, were tied down to rule; for although we ſee extremely different inſtances of the diminution in their works, in general they all look well.

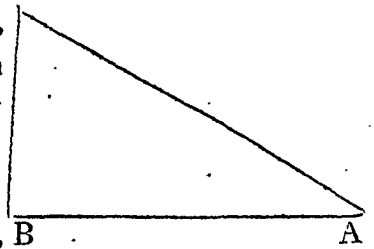
The exterior part of the *Minar* is fluted into twenty-ſeven ſemicircular and angular diviſions, upon which is written a good deal of a very ancient *Arabick* character; it is ſuppoſed to contain paſſages from the *Koran*; there are four balconies

conies in the height of the building, the firſt is at the height of ninety feet, the ſecond at 140, the third at 180, and the fourth at 203 feet; to the height of 180 feet, the pillar is built of an exceeding fine red Granite, and the fluting there ends. The balconies are ſupported upon large ſtone brackets, and have had ſmall battlements erected upon them, as a preventive from people who may chooſe to go into them from falling, and ſerve likewiſe, as an ornamental purpoſe to the building; from the height of 203 feet, excepting a few inconſiderable ornaments, it riſes with an even ſurface and circular form, built of very fine white marble; upon which the date when the *Minar* was completed is ſaid to be written. It was a matter of much diſappointment, that I could not approach ſufficiently near to the date to copy it; for I found it was ſituated at ſuch a height, as to put it totally out of my power; and what adds to the difficulty is, that there is not a bamboo, or wood of any kind produced in that part of the country, calculated to raiſe a ſcaffolding with.

An irregular ſpiral ſtair-caſe, leads from the bottom to the ſummit of the *Minar*, which is crowned with a majeſtic Cupola of red Granite; there are many openings during the aſcent, for the admiſſion of light and air; at each balcony, an opening to allow of people walking into them, but I found the battlements in many parts entirely ruined, and thoſe that were ſtanding in ſuch a decayed ſtate, as to render it a matter of ſome danger to venture out from the ſtair-caſe.

The entire height of the *Cuttub Minar* is 242 feet and ſix inches: I aſcertained it by meaſuring a direct line from its baſe; and, as it may be a matter of ſome ſatisfaction to ſee that it is done with preciſion, I annex the Trigonometrical calculation.

The baſe A B being meaſured in a right line from the bottom of the *Minar*, was found to be 402 feet and ſix inches; twenty-four feet one inch, the ſemi-diameter of the Baſe of the *Minar*, being added to it, gave a line of 426 feet and ſeven inches from the centre of the Pillar. At the extremity of the Baſe A, a Theodolite was placed, and previouſly being carefully adjuſted by putting the line of collimation in the Teleſcope, parallel to the plane of the Horizon, the angle B A C was obſerved to be twenty-nine degrees, thirty-nine minutes; thence the height of the *Cuttub Minar*, was found to be 242 feet and nearly ſix inches.



By

By Plane Trigonometry.

The Baſe A B giving 426 feet, ſeven inches, ſay 426,5, the angle B A C is given 29°, 39′, the angle B A C is a right one; the ſum of the angles in all triangles being equal to two right angles, or 180 degrees, by deducting the ſum of the two angles C A B and A B C, from the ſum of three angles in the triangle A B C, the angle A C B will be found

C A B = 29. 39
A B C = 90. —

180—119. 39 = 60. 21 = Angle A C B.

Then as the angle A C B is to the ſide A B, ſo is the angle C A B to the ſide C B, or height of the *Minar*.

Log. S. of ACB	Log. of AB	Log. S. of CAB	Log. of CB
9,93905	: 62942 ::	9,69434	: 242,5
		+ 2,62942	
		12,32376	
		— 9,93905 feet.	
		2,38471 =	242,5

The *Cuttub Minar* is ſituated about nine miles bearing S. 16 W. from the *Jumma Musjid*, that was erected by the Emperor SHAW JEHAN in the preſent city of *Delhi*, and appears to have been deſigned for a *Minaret* to a moſt ſtupendous moſque, which never was compleated; a conſiderable part of the ſecond and correſponding *Minaret* is to be ſeen, and many other parts of this intended immenſe building, particularly of the arches. The moſque ſeems to have been abandoned in this unfiniſhed ſtate, from cauſes at this time entirely unknown; perhaps the original deſigner of the fabrick found human life too ſhort to ſee it accompliſhed during his exiſtence. It may not appear a matter of much ſurprize that the wealth of one man ſhould be found inadequate to ſo arduous an undertaking, however opulent and exalted in life his ſituation may have been. The tomb of CUTTUB SHAW, at whoſe expence the *Minar* is ſaid to have been built, is to be ſeen a few hundred yards to the weſtward of it: the tomb is rather inconſiderable and of mean appearance, when compared with the many more magnificent mauſoleums that are to be met with in the extenſive ruins of *Delhi*.

CUTTUB

CUTTUB SHAW came to the throne of *Delhi* in the *Muſſulman* year 602, correſponding with the *Chriſtian* æra 1205, and died in the *Muſſulman* year 607, or *Chriſtian* æra 1210, a reign of only five years; and certainly a period not ſufficient to erect ſo large a building as a moſque, to correſpond in magnitude and grandeur with the *Minar* and other parts of the ſtructure that were began upon, adjoining to it.

I think it may with ſome degree of reaſon be inferred that a ſtop was put to the building of the moſque at the deceaſe of CUTTUB SHAW, and from which period we may date the *Minar* to have been completed; conformably with this inference, it is aſcertained that the *Minar* has ſtood at leaſt 580 years. Excepting the unavoidable and irreſiſtible effects of lightning, from the goodneſs of the materials, and the excellent judgment with which they appear to have been put together, there is every reaſon to ſuppoſe it would have withſtood the ravages of time, for ſucceeding generations to behold, with admiration and aſtoniſhment, for yet many ages.

ASTRONOMICAL OBSERVATIONS MADE ON A VOYAGE TO THE ANDAMAN AND NICOBAR ISLANDS,

By LIEUT. R. H. COLEBROOKE.

DIAMOND ISLAND, near *Cape Negrais*, 1789.

		Latitude.
December 14th.	By the Sun's Meridian Altitude taken on ſhore,	15° 49′ 33″
	By Captain KYD, - - - - -	15 49 43
	Mean	15 49 38

CARNICOBAR ISLAND, 1790. On board the *Atalanta* Sloop of War, about one mile from the weſtern ſhore.

January 2d, Sun's mer. alt. 57° 44′ 40″ *Lat.* 9° 8′ 52″

BEARINGS.

BEARINGS.

Northernmoſt point of the Land, - - -	N. 16° E.
Southernmoſt point of do. - - - -	S. 21 E.
Neareſt ſhore - - - - -	N. 70 E.

DANISH POINT, *at Nancowry*, 1790. *Obſervations for the Latitude, taken near the Flag Staff.*

	Sun & Stars.	*Doub. Mer. Alts.*	*Latitude N.*
January 11th	Capella, -	104° 33′ 0″	8° 1′ 51″
	Canopus -	58 48 0	8 2 17
20th	α Perſei -	97 54 30	8 2 31
21ſt	Sun's lower limb,	123 42 0	8 2 27
	Capella, -	104 34 30	8 2 36
	β Aurigæ, -	106 18 10	8 2 49
23d	Capella, -	104 34 20	8 2 35
	β Aurigæ, -	106 17 30	8 2 29
		Mean of the whole	8 2 26,8

If the firſt obſervation by Capella be rejected, the mean of the remaining ſeven will be 8° 2′ 32″.

The obſervations were made with a fine Sextant by TROUGHTON, and Artificial Horizon. The refractions applied in computing theſe, and all the following obſervations, were taken from Monſieur LE GENTIL's Table, publiſhed in his "*Voyage dans les Mers de l'Inde.*" The declinations of the Stars were taken from Table 7th of the requiſite Tables, and partly from DUNN's Catalogue.

OBSERVATIONS *for* LONGITUDE, *by the* ECLIPSES *of* JUPITER'S SATELLITES.

Apparent Time 1790.		*Satellite.*	*Weather.*	*Imm. or Emer.*	*Longitude in Time.*	*Longitude in Degrees.*
D.	*H* ′ ″				*H.* ′ ″	° ′ ″
Ja. 11	12 17 44	1	Clear.	Imm.	6 13 25	93 21 15
20	8 36 51	1	Do.	Imm.	6 13 27	93 21 45
23	11 5 12	2	Do.	Imm.	6 13 26	93 21 30

Mean Longitude of *Daniſh* Point, Eaſt from *Greenwich*, 93 21 30

The Teleſcope was a Refractor, magnifying from 80 to 90 times.

PUMBAUK

PUMBAUK ISLAND, *on board the* Experiment *Cutter. The Southern Extremity of the Iſland bearing Eaſt.*

February 10th, Sun's Mer. Alt. 67° 18′ 30″
Do. by Capt. KYD, 67 18 0

Mean 67 18 15 *Latitude* 8° 13′ 1″

CARNICOBAR ISLAND.

February 15.
Sun's Mer. Alt. 68° 5′ 30″ *Latitude* 9° 5′ 31″
The Southernmoſt point of the Iſland bore E.$\frac{1}{2}$S. 1 mile diſtant.
February 16.
Sun's Mer. Alt. 68° 26′ 15″
Do. by Capt. KYD, 68 26 30

Mean 68 26 22 *Latitude* 9° 6′ 24″
Southernmoſt point of the Iſland bore W.$\frac{1}{4}$S. 1$\frac{1}{4}$ mile diſtant.

CHATHAM ISLAND in *Port Cornwallis**, at the *Great Andaman*, 1790.

OBSERVATIONS FOR LATITUDE.

Date.	*Names of Stars.*	*D. Alts. on Mer.*	*Latitude.*
February 23.	Canopus	51 31 0	11 41 0
24.	β Aurigæ	113 36 30	11 42 5
	α Urſæ Majoris	77 40 0	11 41 49
26.	β Aurigæ	113 36 0	11 41 50
	ε Canis Majoris	99 15 0	11 41 23
	δ Canis Majoris	104 31 0	11 40 49
28.	β Aurigæ	113 36 20	11 42 0
	Canopus	51 31 10	11 40 55
March 2.	ε Canis Majoris	99 15 30	11 41 8
3.	Sirius	123 46 30	11 40 50
9.	τ Argo Navis	63 14 40	11 40 37
11.	ξ Argo Navis	77 48 30	11 41 40
	β Urſæ Majoris	88 25 30	11 42 5

Mean 11 41 23,9

* The Old Harbour ſo called.

OBSER-

OBSERVATIONS *for* LONGITUDE, *by the* ECLIPSES *of* JUPITER'S SATELLITES.

Apparent Time 1790.		*Satellite.*	*Weather.*	*Imm. or Emer.*	*Longitude in Time.*	*Longitude in Degrees.*
D	H. ′ ″				H. ′ ′	° ′ ″
Feb. 24	13 31 56,5	2	Clear	Emer.	6 10 24,5	92 36 7,5
26	14 45 59	1	Clear	Emer.	6 10 35	92 38 45
March 7	11 10 41,5	1	Clear	Emer.	6 10 34,5	92 38 37,5
14	8 7 47,5	2	Clear	Emer.	6 10 33,5	92 38 22,5
15	13 6 38,4	1	Clear	Emer.	6 10 19,5	92 34 52,5
16	7 35 34	1	Clear	Emer.	6 10 10	92 32 30
					Mean	92 36 32,5

An excellent Chronometer by ARNOLD was uſed in obſerving the time; to correct which, frequent obſervations of the ſun and ſtars were taken. The former by equal or correſponding altitudes, obſerved before and after noon, to which the proper equations were applied: and in the latter caſe by taking ſeveral altitudes of a ſtar eaſt, and one weſt, a few minutes before and after the obſervation: theſe were calculated ſeparately, and the mean of the reſults was applied to the correction of the watch. The apparent time, as deduced from the ſun or ſtars, agreed in general within a ſecond or two.

ASTRONOMICAL OBSERVATIONS *made on a Survey through the* CARNATIC *and* MYSORE *Country.—By Lieutenant* R. H. COLEBOOKE.

OBSERVATIONS FOR LATITUDE.

Date.	*Names of Stars.*	*Mer. Alts. obſerved.*	*Latitude derived.*	*Mean Latitude.*	*Bearing and Diſtance of the neareſt Place.*
1791.		° ′ ″	° ′ ″	° ′ ″	
Feb. 2	Capella,	57 19 15	13 4 48		
	Canopus,	24 23 0	13 3 34		
3	β Aurigæ.	58 10 0	13 3 52	13 3 57	Villout Choultry, W. b. N. ½ N. 1 mile diſtant.
	β Canis Majoris,	59 5 0	13 3 38		
	Sirius,	60 30 10	13 3 53		
15	Capella,	57 27 0	13 12 33		
	Aurigæ,	58 19 45	13 13 37	13 13 14,6	Chitore Fort, N. 65 W. 1¼ mile diſtant.
	Sirius,	60 20 30	13 13 34		
16	β Aurigæ,	58 18 0	13 11 52		
	β Canis Majoris,	58 56 0	13 12 38	13 12 19	Marſundrum Village, S. b. E. 4 furls. diſtant.
	Sirius,	60 21 37	13 12 27		
18	Capella,	57 25 30	3 11 3		
	Canopus,	24 14 50	13 11 46	13 11 38,7	Moogly Pagoda, W. 5 S. 4 f. d.
	β Aurigæ,	58 18 20	13 12 12		
	Sirius,	60 22 30	13 11 34		

Date.	Names of Stars.	Mer. Alts. observed.	Latitude derived.	Mean Latitude	Bearing and distance of the nearest Place.
1791.		° ′ ″	° ′ ″	° ′ ″	
Feb. 20	Capella,	57 26 45	13 12 19		
	Sirius,	60 21 15	13 12 49		
21	β Aurigæ,	58 19 30	13 13 22	13 12 51	Palmanaire, S. 60 E. 1 m. d.
	Sirius,	60 21 30	13 12 34		
	β Aurigæ,	58 19 20	13 13 12		
March 2	β Aurigæ,	58 11 0	13 4 52	13 4 35,5	Ooffcottah, N. 72 W. 1 m. 6 f. d.
	Sirius,	60 9 45	13 4 19		
May 7	α Urfæ Majoris,	39 36 30	12 27 59	— —	Santanoor N. b. E. 2 f. d.
13	α Urfæ Majoris,	39 34 15	12 25 44	12 25 42,5	Arakeeree Fort, S. E. 2 f. d.
	Ditto, by Lieut. Bufhby,	39 34 12	12 25 41		
25	γ Urfæ Majoris,	47 35 45	12 26 14		
	δ Urfæ Majoris,	44 15 40	12 26 19	12 26 24,6	Kanambaddy, W. 1 m. d.
	Σ Urfæ Majoris,	45 22 0	12 26 41		
30	η Urfæ Majoris	52 11 50	12 32 47	12 32 43	Tondanoor Village, N. N. W. 6 f. d.
	θ Centauri,	42 8 30	12 32 39		
June 11	ξ Urfæ Majoris,	46 45 45	12 46 2		
	η Urfæ Majoris	52 24 30	12 45 24	21 45 29	Yekaty Village, N. 27 E. 4 f. d.
	θ Centauri,	41 56 10	12 45 1		
17	η Urfæ Majoris,	52 25 15	12 46 9	12 46 8	Bimnelly Village Weft, ½ f. d.
	θ Centauri,	41 55 0	12 46 7		
19	η Urf. Maj.	52 27 15	12 48 9	12 47 58	Hooliordroog N 74 W. 4 miles diftant.
	θ Centauri,	41 53 20	12 47 47		
June 29	Antares,	51 6 0	12 57 31	12 57 20,5	Maggry Pagoda with the Bull N. 60 E. 1 furlong dift.
	η Draconis,	40 59 40	12 57 10		
July 21	τ Scorpii,	40 27 30	12 37 23	12 37 42	Anchitty Droog S. 38 E. 3¾ m. d.
	γ Draconis,	51 7 30	12 38 1		
25	Antares,	58 29 0	12 34 30		Neeldurgum N. 70 W. 1¾ m. d.
Septem. 29	δ Cygni,	58 31 30	13 8 41		
	α Cygni,	58 36 45	13 8 47		
	γ Grus,	38 32 30	13 8 27		
30	δ Cygni,	58 31 35	13 8 46	13 8 50,3	Singanaikanapilly Vill. S. S. E. 2 f. d.
October 1	α Cygni,	58 36 45	13 8 47		
2	Fomalhaut,	46 8 35	13 8 59		
3	Fomalhaut,	46 8 30	13 9 4		
6	α Grus,	28 54 50	13 9 12		
Novem. 26	Fomalhaut,	46 20 0	12 57 36		
	α Caffiopeæ,	47 34 30	12 57 20	12 57 39	In the Area of Bangalore Palace.
	Do. by Ct. Kyd,	47 35 0	12 57 50		
	δ Caffiopeæ,	43 50 0	12 57 53		
Decem. 16	Sun's lower limb,	53 22 35	13 1 8		
	α Caffiopeæ,	47 38 30	13 1 21	13 1 15,5	Sandicoupang Fort Eaft, ½ f. d.
	θ Eridani,	35 51 30	13 0 59		
	α Perfei,	53 55 45	13 1 34		
Decem. 27	δ Caffiopeæ,	43 49 45	12 57 40		
	θ Eridani,	35 55 15	12 57 14		
	α Perfei,	53 52 7	12 57 57	12 57 27	Maggry Pagoda, with the Bull, N. 76 W. 4 furls. dist.
28	θ Eridani,	35 55 20	12 57 9		
	α Perfei,	53 52 0	12 57 50		
31	Sun's lower limb,	53 40 15	12 57 19		

Date.	Names of Stars.	Mer. Alts. observed.	Latitude derived.	Mean Latitude.	Bearing and Distance of the nearest Place.
1792.		° ′ ″	° ′ ″	° ′ ″	
February 20	β Aurigæ,	57 34 0	12 27 53		
	β Canis Maj.	59 40 45	12 27 51		
	Sirius,	61 6 15	12 27 43		
21	β Aurigæ,	57 34 10	12 28 3		
	β Canis Maj.	59 41 10	12 27 26		Camp before Seringapatam, the Great Pagoda bearing from the place of observation S. 2° W. 2¾ miles distant—Lat. of Great Pagoda derived 12° 25′ 34″.
	Sirius,	61 6 0	12 27 58		
29	β Aurigæ,	57 34 10	12 28 3	12 27 52,2	
March 3	Aurigæ,	57 34 15	12 28 8		
	Sirius,	61 6 25	12 27 33		
4	ξ Urſæ Majoris,	46 28 0	12 28 3		
	η Urs. Maj.	52 7 0	12 27 42		
15	ε Canis Maj.	48 51 0	12 27 45		
	δ Canis Maj.	51 28 0	12 28 11		
April 19	α Urſæ Majoris,	39 38 30	12 29 29	— —	Tripatore Fort, S. E. 1. m. d.
23	α Urs. Maj.	40 3 20	12 54 30	12 54 32	Vellore Fort.
	β Centauri,	27 33 15	12 54 34		

OBSERVATIONS *for* LONGITUDE, *by the* ECLIPSES *of* JUPITER'S SATELLITES.

Date and apparent Time of the Observations.					S.t.	Imm Emer.	Weather.	Longitude in Time.	Longitude in Degrees.	Bearing and distance of nearest Place.
1791.	D.	H.	′	″				H. ′ ″	° ′ ″	
Feb.	22.	12	33	42	1	Imm.	clear.	5 14 10	78 32 30	Palmanaire S. 60 E. 1 m. d.
March	3.	8	54	3	1	Imm.	ditto.	5 10 28	77 37 0	Ooſſcotta N. 72 W. 1¾ m. d.
May	27.	10	9	42	1	Emer.	windy.	5 6 24	76 36 0	Seringapatam Great Pagoda S. 8° E. 5 m. d.
June	12.	8	25	19,5	1	Emer.	clear.	5 6 52,5	76 43 7,5	Yekaty Village N. 27 E. 4 f. d.
	19.	10	18	54	1	Emer.	ditto.	5 7 17	76 40 15	Hoolior-droog N. 74 E. 4 m. d.
1792.										
Mar.	12.	13	36	9	1	Imm.	ditto.	5 6 12	76 33 0	Camp before Seringapatam Pagoda bearing S. 2 W. 2¼ m. d.
	19.	15	32	3	1	Imm.	ditto.	5 6 8	76 32 0	
	21.	10	0	54	1	Imm.	ditto.	5 5 57	76 29 15	

Magnifying Power of the Teleſcope, 80 to 100 times Achromatic.

TABLE *of* LATITUDES *and* LONGITUDES *of ſome principal* Places *in* India, *determined from Aſtronomical Obſervations.*—*By Mr.* Reuben Burrow. *Communicated by Lieut.* R. H. Colebrooke.

Places.	Latit. N.	Longit. in Time.	Remarks.
Ruſſapugly near Calcutta.	22°30′ 20″	5ʰ53′ 30″	Mr. Burrow's Reſidence.
Bygonbarry,	24 48 14	6 0 46	The old Factory on the Barrampooter River
Dewangunge,	25 9 31	5 58 36	
			Tealcopee,

Places.	Latit. N.	Longit. in Time.	Remarks.
Ruſſapugly near Calcutta.	22°30′ 20″	5h 53′ 30″	Mr. Burrow's Reſidence.
Tealcopee,	25 19 16	5 58 34	
Shealdoo Nullah,	25 58 8	5 59 17	At the Conflux with the River
Bakkamarchor,	26 1 44	5 59 43	
Kazycottah,	26 9 4	6 0 33	
Goalparra,	26 11 21	6 2 9	The Kotie, or Factory
Doobarey,	26 1 6	5 59 42	The Mount
Dadnachorr,	25 3 36		The large Tree
Pookereah,	24 54 6	5 59 45	
Sagow,	24 35 41		Between two large Trees, Centre of the Town
Tingarchorr,	24 18 6	6 2 15	Near the Mouth of the Bannar River
Diggamabad,	24 0 38		
Ameerabad,	23 55 31	6 3 7	Mouth of the Nullah
Sampmarray,	23 40 16	6 2 30	
Remateally Nullah,	22 55 35	6 2 54	Conflux with the Megna River
Rajegunge,	22 38 7	6 0 38	End of the Town near Sootaloory
Coweally,	22 37 30	5 59 55	
Gonganagor,	22 37 36	5 59 47	

At *Cheduba*, and on the *Arracan Coaſt.*

Places.	Latitude.	Long.	*Spot of Obſervation, and Remarks.*
Tree Iſland,	18°27′ 30″	6h16′ 12″	
Cheduba Flag Staff,	18 53 8	6 14 28	
Houſe Iſland,	18 56 42	6 14 19	Center Rock
Maykawoody,	18 50 43	6 15 11	Fort of Cheduba
Jy,	19 5 46	6 15 11	Fort of Tumbiah
Dumſil,	18 57 40	6 16 7	An Iſland in the Cantabida, or Catabida River
Jykuna Iſland,	18 44 40	6 15 43	N. end of the Iſland
Chagoo Rock,	18 48 51		Near the mouth of the Catabida River
Kyaunimo,	18 54 36	6 16 0	A Town in the Catabida Harbour
Cedars Point,	18 52 58	6 15 21	A remarkable point in Cheduba

On the *Ganges, &c.*

Nuddea,	23°25′ 49″	5h53′ 32″	Junction of the Hoogly and Caſſimbazar Rivers.
Sackey Fort,	23 40 0		
Gour,	24 53 0	5 52 13	The antient round Tower
Rajemahl,	25 3 15	5 50 56	The Marble Palace
Colgong,	25 16 6	5 48 39	Mr. Cleveland's Bungalow
Mongheer,	25 22 57	5 45 57	Rocky point of the Fort
Patna,	25 36 3	5 41 2	Chehelſetoon, or Alaverdi's Palace near the Fort
Bankipoor,	25 37 38	5 40 40	Granary
Buxar,	25 34 27	5 35 59	Fort Flag Staff
Mouth of the Caramnaſſa River,	25 30 20	5 35 31	
Mouth of the Goomty,	25 31 25	5 32 36	
Oojear,	25 35 21		
Benares,	25 18 36	5 31 59	The Hindoo Obſervatory
Chunar Fort,	25 7 40	5 31 22	Flag Staff
Chunar Camp,	25 6 30	5 31 12	Captain Bough's Bungalow

Tonſe

Places.	Latitude.	Long.	*Spot of Observation, and Remarks.*
Tonſe River,	25° 16′ 16″	5h 28′ 0″	Conflux with the Ganges
Allahabad,	25 25 56	5 27 24	S. E. Corner of the Fort at Preyag
Correahcottah,	25 33 16	5 26 28	Cloſe to the Nullah, higheſt part of the Town
Surajepoor,	26 10 24	5 21 58	River ſide near the middle of the Town
Jaujeſmow,	26 26 25	5 21 15	Seebſmot on the Hill
Caunpour,	26 30 3	5 20 54	Magazine Gaut
Joognagpoor,	26 44 46	5 20 15	At the Gaut
Nanamow,	26 53 0	5 20 0	At the old Stone Gaut
Mindi Gaut,	27 0 33	5 19 30	
Canouge,	27 3 30	5 19 12	The Fort
Cuſſumkhore,	27 8 56	5 19 5	Seebſmot on the Hill
Keaſſpore,	27 13 25		
Sungrumpore,	27 14 28	5 18 8	The Gaut
Futtyghur,	27 23 11	5 18 5	The Fort
Jillalabad,	27 43 56	5 18 56	The Fort
Berimutana,	27 52 22	5 18 20	The Well
Kheerpoor,	27 58 22	5 18 16	Near the Old Fort
Cutterah,	28 1 47	5 18 12	The Brick Fort
Jeſſooah,	28 8 17	5 17 53	Well
Fereedpour,	28 12 54	5 17 41	The Fort
Bareilly,	28 22 5	5 17 5	The Fort
Lumberah,	28 27 39		
Hafizgunge,	28 29 40	5 17 53	The Serai
Nabobgunge,	28 32 29	5 18 11	
Lillowry,	28 36 38		
Pillibeat,	28 37 42	5 18 46	The Edgaw
Do. Hafiz Musjid,	28 38 20	5 18 47	Center of Pillibeat
Gowneerah,	28 37 35		
Barrower,	28 36 53	5 17 55	N. E. end of the Town on the Banks of the Bhagul
Shair Ghur,	28 38 50	5 17 1	Fort
Bourkah,	28 43 23	5 16 26	
Rampour,	28 48 50	5 15 34	N. W. Gate of the City
Moradabad,	28 50 24	5 14 44	Centre of Ruſtum Khan's Palace
Mahmudpore,	28 42 1	5 14 12	
Sumbul,	28 35 14	5 13 49	The ancient Fort Gate of Kollankee Ootar
Boojepoor,	28 56 39	5 14 55	Seebs Temple in the Tope
Bhyrah,	29 2 11	5 15 6	
Coſſipore,	29 12 44	5 15 24	Fort
Hazaretnagor	29 12 5	5 14 53	Fort
Rair,	29 21 13	5 14 33	Hindoo Moat, through the Town
Afzul Ghur,	29 23 45	5 14 14	Palace in the Fort
Sheercote,	29 19 48		Principal Moſque in the City
Nundenah,	29 27 16	5 13 19	Brick Fort
Nidjibadad,	29 36 46	5 12 52	White Moſque
Patter Ghur,	29 36 31	5 12 59	High Gate of the Fort
Chundnywalla,	29 52 8		
Asoph Ghur,	29 44 14	5 12 19	Center of the Fort
Borunwalla,	29 47 26		This Village is in the large Jungle
Lolldong,	29 50 28		Place where the Camp was in 1774
Joogywalla,	29 58 0	5 12 16	Bamboo Fort
Chandy Gaut,	29 56 24	5 12 10	Stone Temple, oppoſite Hurdwar
Hurdwar,	29 57 9	5 12 9	Northermoſt Building in the Town
Congree,	29 53 19		Alſo called Hyder Ghur
Nagal,	29 39 40	5 12 16	The Nawab's Artillery Shed
Mundawer,	29 29 5	5 12 2	Dowlet Khan's Musjid
Darahnagur,	29 16 49	5 12 0	Nidjib Khan's Seray
Chaundpour,	29 13 4	5 12 12	

Amrooah,

Places.	Latitude.	Long.	*Spot of Obſervation, and Remarks.*
Amrooah,	28 54 22	5 13 27	Fort of the Sieds
Khuntpour,	28 44 29		
Huſſenpour,	28 43 8	5 12 39	Stone Gate of the Fort
Seerſee,	28 28 52	5 12 37	Well of the Town
Anopſhir,	28 22 50	5 12 36	On the ſteep Bank Eaſt of the Flag Staff
Donaree,	28 21 10		Mud Fort
Chandouſey,	28 26 51	5 14 45	Eaſt Gate of the Town
Biſſoolie,	28 18 51	5 15 17	Doondy Khan's Musjid
Bunneah,	28 12 29		Village in a Jungle
Budawun,	28 2 39	5 16 0	Large antient Moſque of Cuttub ud Dien
Oſſoheet,	27 48 12	5 16 28	Eaſt Gate
Bettoor,	26 37 24	5 20 40	Gow Ghaut
Gopalpour,	26 3 49		
Mobarickpour,	25 31 18		
Bogwangolah,	24 20 45	5 22 50	Mouth of the Culcullia * River
Tea Cally Dumduma,	24 1 26	5 55 40	
Pubna,	24 0 12	5 56 27	The Hindoo Temple
Coſſunda,	23 53 48	5 59 3	
Dacca,	23 43 0	6 1 12	The Chief's Houſe, called the Pooſhta

* The entrance of the *Culcullee*, or *Culcullia*, River is no longer at *Bogwangolah*, but about twelve miles lower down, between *Murcha* and *Cutlamary*; which change may have been produced by the encroachment of the *Ganges*.

Note by Mr. Burrow.

As a more particular account will be given hereafter of the manner in which theſe Latitudes and Longitudes were deduced, it will be ſufficient here to mention, that the Meridian Altitudes of Stars from whence the Latitudes were derived, ſometimes amounted to twenty or thirty, North and South, and very ſeldom were leſs than five or ſix, and thoſe moſtly on both ſides the Meridian; ſo that, upon the whole, I believe very few of the foregoing Latitudes can be more than five ſeconds wrong, perhaps not many of them ſo much, as the ſingle obſervations with the Sextant ſeldom differed from one another more than fifteen or twenty ſeconds, and very often not half the number. As to the Longitudes, it is poſſible there may in ſome caſes be an error of two or three miles; but I can ſcarce believe there is any great probability of it, as the obſervations were made, as well as calculated, in a different and more exact manner than is generally uſed at preſent.

ON SOME EXTRAORDINARY FACTS, CUSTOMS, AND PRACTICES OF THE HINDUS.

By the President.

In the preliminary diſcourſe addreſſed to the Society by our late Preſident, *Man* and *Nature* were propoſed as the comprehenſive objects of our Reſearches; and although I by no means think that advantage ſhould be taken of this extenſive propoſition to record every trivial peculiarity of practice, habit, or thinking, which characterizes the natives of *India*, many ſingularities will be found amongſt them which are equally calculated to gratify curioſity, and to attract the notice of the philoſopher and politician.

Of all ſtudies, that of the human mind is of the greateſt importance; and whether we trace it in its perfection or debaſement, we learn to avoid error, or obtain models for improvement and examples for imitation. In purſuing cuſtoms and habits to the principles from which they are derived, we aſcertain by the ſure rule of experience the effects of natural or moral cauſes upon the human mind.

The characters of the natives of *India*, notwithſtanding all that has been publiſhed in *Europe*, are by no means well underſtood there; and a careful and accurate inveſtigation of them, with a due diſcrimination of habits and uſages, as local or general, would afford a ſubject for a curious, uſeful, and entertaining diſſertation.

It is not my intention to undertake it. I neither profeſs to have ability, nor have I leiſure for the taſk; and the preceding remarks are offered to the Society for the purpoſe only of introducing the recital of ſome extraordinary facts, cuſtoms, and practices of this country, which have occurred to my obſervation in the courſe of public duty. If the narrative has too much of the language of office, it may be deemed a ſufficient compenſation that it is extracted from official documents, and judicial records, and hence has a claim to authenticity.

The inviolability of a *Bráhmen* is a fixed principle of the *Hindus*; and to deprive him of life, either by direct violence, or by cauſing his death in any mode, is a crime which admits of no expiation. To this principle may be traced the practice called *Dherna*, which was formerly familiar at *Benares*, and may be tranſlated

CAPTION or ARREST. It is uſed by the *Bráhmens* in that city, to gain a point which cannot be accompliſhed by any other means; and the proceſs is as follows:

The *Bráhmen* who adopts this expedient for the purpoſe mentioned, proceeds to the door or houſe of the perſon againſt whom it is directed, or wherever he may moſt conveniently intercept him: he there ſets downs in *Dherna*, with poiſon, or a poignard, or ſome other inſtrument of ſuicide in his hand, and threatening to uſe it if his adverſary ſhould attempt to moleſt or paſs him, he thus completely arreſts him. In this ſituation the *Bráhmen* faſts; and by the rigor of the etiquette, which is rarely infringed, the unfortunate object of his arreſt ought alſo to faſt; and thus they both remain until the inſtitutor of the *Dherna* obtains ſatisfaction. In this, as he ſeldom makes the attempt without reſolution to perſevere, he rarely fails; for if the party thus arreſted were to ſuffer the *Bráhmen* ſitting in *Dherna* to periſh by hunger, the ſin would for ever lie upon his head. This practice has been leſs frequent of late years, ſince the inſtitution of the Court of Juſtice at *Benares* in 1783; but the interference of that Court, and even that of the Reſident there, has occaſionally proved inſufficient to check it; as it has been deemed in general moſt prudent to avoid for this purpoſe the uſe of coercion, from an apprehenſion that the firſt appearance of it might drive the ſitter in *Dherna* to ſuicide. The diſcredit of the act would not only fall upon the officers of Juſtice, but upon the Government itſelf.

The practice of ſitting in *Dherna* is not confined to male *Bráhmens* only. The following inſtance, which happened at *Benares* in the year 1789, will at once prove and exemplify it:—

Beenoo Bhai the widow of a man of the *Bráhminical* tribe, had a litigation with her brother-in-law BALKISHEN, which was tried by arbitration; and the trial and ſentence were reviſed by the court of Juſtice at *Benares*, and again in Appeal.

The ſuit of *Beenoo* involved a claim of property and a conſideration of caſt, which her antagoniſt declared ſhe had forfeited. The deciſion was favourable to her, but not to the extent of her wiſhes; and ſhe reſolved therefore to procure by the expedient of the *Dherna*, as above explained, what neither the award of arbitration nor the judicial deciſion had granted.

In conformity to this reſolution, BEENOO ſat down in *Dherna* on BALKISHEN; and he, after a perſeverance of ſeveral days, apprehenſive of her death, repaired with her to a *Hindú* temple in *Benares*; where they both continued to faſt ſome time longer. Thirteen days had elapſed from the commencement of BALISHEN'S arreſt,

arreſt, when he yielded the conteſt, by entering into a conditional agreement with BEENOO, that if ſhe could eſtabliſh the validity of her caſt, and in proof thereof prevail on ſome creditable members of her own tribe to partake with her of an entertainment of her providing, he would not only defray the expence of it, but would alſo diſcharge her debts. The conditions were accepted by BEENOO, who fulfilled her part of the obligation; and her antagoniſt, without heſitation, defrayed the charges of the entertainment: but the non-performance of his engagement to diſcharge her debts, induced BEENOO BHAI to inſtitute a ſuit againſt him; and the practice of the *Dherna*, with the proofs of it, were thus brought forward to official notice.

It is not unworthy of remark, that ſome of the *Pandits*, on being conſulted, admitted the validity of an obligation extorted by *Dherna*, provided the object were to obtain a juſt cauſe, or right wickedly withheld by the other party, but not otherwiſe. Others again rejected the validity of an engagement ſo extorted, unleſs it ſhould be ſubſequently confirmed by the writer, either in whole or in part, after the removal of the coercion upon him.

Of the practice which I have related, no inſtance exactly ſimilar has occurred to my knowledge in *Bengal* or *Behar*, although *Bráhmens*, even in *Calcutta*, have been known to obtain charity or ſubſiſtence from *Hindus*, by poſting themſelves before the doors of their houſes, under a declaration to remain there until their ſolicitations were granted. The moderation of the demand generally induces a compliance with it; which would be withheld if the requiſition were exceſſive. But I have been credibly informed that inſtances of this cuſtom occaſionally occur in ſome parts of the *Vizier's* dominions, and that *Bráhmens* have been ſucceſsfully employed there to recover claims, by calling upon the debtor to pay them, with a notification that they would faſt until the diſcharge of the debt. The debtor, if he poſſeſſes property or credit, never fails to ſatisfy the demand againſt him.

Another practice, of a very ſingular and cruel nature, is called Erecting a *Koor*. This term is explained to mean a circular pile of wood which is prepared ready for conflagration. Upon this, ſometimes a cow, and ſometimes an old woman, is placed by the conſtructors of the pile; and the whole is conſumed together. The object of this practice is to intimidate the officers of Government, or others, from importunate demands, as the effect of the ſacrifice is ſuppoſed to involve in great ſin the perſon whoſe conduct forces the conſtructor of the *Koor* to this expedient.

An inſtance of this practice occurred in a diſtrict of the province of *Benares* in the

year 1788. Three *Bráhmens* had erected a *Koor*, upon which an old woman had ſuffered herſelf to be placed; the object of temporary intimidation was fully attained by it, and the timely interpoſition of authority prevented the completion of the ſacrifice. It cannot be unintereſting to know the cauſe which urged the three *Bráhmens* to this deſperate and cruel reſource. Their own explanation is ſummarily this: That they held lands in partnerſhip with others, but that the public aſſeſſment was unequally impoſed upon them; as their partners paid leſs, whilſt they were charged with more than their due proportion; they therefore refuſed to diſcharge any part of the revenues whatever, and erected a *Koor* to intimidate the government's officers from making any demands upon them. Their ſole object, as they explicitly declared, was to obtain an equal diſtribution of the public aſſeſſment between themſelves and their partners.

A woman, nearly blind from age, had in this inſtance been placed upon the *Koor*: ſhe was ſummoned to appear before the Engliſh ſuperintendant of the province, but abſolutely refuſed to attend him; declaring that ſhe would throw herſelf into the firſt well rather than ſubmit. The ſummons was not enforced.

This is the only inſtance of ſetting up a *Koor* which had occurred for many years, previous to 1788, although the practice is ſaid to have been frequent formerly. No information has reached me of the repetition of this practice in *Benares*, or of the exiſtence of it in any other part of the Company's poſſeſſions; nor is it pretended that it was ever general throughout *Benares*, but is expreſsly aſſerted to have been limited to a very ſmall portion of that extenſive province.

This laſt mentioned fact is very oppoſite to that humanity and mildneſs of diſpoſition by which the author of the hiſtorical diſquiſition, regarding ancient and modern *India*, affirms the inhabitants of this country to have been diſtinguiſhed in every age. As a general poſition, liable to particular exceptions, I am not authorized to diſpute it: but it muſt at the ſame time be admitted, that individuals in *India* are often irritated by petty provocations to the commiſſion of acts which no provocation can juſtify; and, without reference to the conduct of profeſſed depredators, examples may be produced of enormities ſcarcely credible: the reſult of vindictive pride, and ungoverned violence of temper.

In ſupport of theſe aſſertions, I ſhall quote three remarkable inſtances, atteſted by unqueſtionable evidence. In 1791 SOODISHTER MIER, a *Bráhmen*, the farmer of land paying revenue and tenant of tax free land in the province of *Benares*, was ſummoned to appear before a native officer, the deputy collector of the diſtrict

where

where he reſided. He poſitively refuſed to obey the ſummons, which was repeated without effect; and, after ſome time, ſeveral people were deputed to enforce the proceſs, by compelling his attendance. On their approaching his houſe he cut off the head of his deceaſed ſon's widow, and threw it out. His firſt intention was to deſtroy his own wife; but it was proved in evidence that, upon his indication of it, his ſon's widow requeſted him to decapitate her; which he inſtantly did.

In this caſe, the proceſs againſt SOODISHTER was regular, his diſobedience contemptuous; his ſituation in life entitled him to no particular exemption, he had nothing to apprehend from obeying the requiſition, and he was certain of redreſs if injury or injuſtice were practiſed upon him.

Another *Bráhmen*, named BALOO PAUNDEH, in 1793, was convicted of the murder of his daughter. His own account of the tranſaction will beſt explain it, and his motives; I give it in abſtract. That about twelve years before the period of the murder, he, BALOO, and another man, were joint tenants and cultivators of a ſpot of ground, when his partner BALOO relinquiſhed his ſhare. In 1793 this partner again brought forward a claim to a ſhare in the ground: the claim was referred to arbitration, and a deciſion was pronounced in favour of BALOO. He conſequently repaired to the land, and was ploughing it, when he was interrupted by his opponent. The words of BALOO are as follows: "I became angry, and "enraged at his forbidding me, and bringing my own little daughter APMUNYA, "who was only a year and a half old, to the ſaid field, I killed her with my "ſword." This tranſaction alſo happened in the province of *Benares*.

The laſt inſtance is an act of matricide, perpetrated by BEECHUK and ADHER, two *Bráhmens*, and zemindars, or proprietors of landed eſtates, the extent of which did not exceed eight acres. The village in which they reſided was the property of many other zemindars. A diſpute, which originated in a competition for a general ſuperintendence of the revenues of the village, had long ſubſiſted between the two brothers and a perſon named GOWRY; and the officer of government, who had conferred this charge upon the latter, was intimidated into a revocation of it by the threats of the mother of BEECHUK and ADHER to ſwallow poiſon, as well as to the transfer of the management to the two *Bráhmens*. By the ſame means of intimidation he was deterred from inveſtigating the complaints of GOWRY, which had been referred to his enquiry by his ſuperior authority.

But the immediate cauſe which inſtigated the *Bráhmens* to murder their mother, was an act of violence, ſaid to have been committed by the emiſſaries of GOWRY, with

with or without his authority, and employed by him for a different purpoſe, in entering their houſe, during their abſence at night, and carrying off forty rupees, the property of BEECHUK and ADHER, from the apartments of their women.

Beechuk firſt returned to his houſe, where his mother, his wife, and his ſiſter-in-law, related what had happened. He immediately conducted his mother to an adjacent rivulet, where, being joined in the grey of the morning by his brother ADHER, they called out aloud to the people of the village, that although they would overlook the aſſault as an act which could not be remedied, the forty rupees muſt be returned. To this exclamation no anſwer was received; nor is there any certainty that it was even heard by any perſon; and BECHUK without further heſitation drew his ſcymetar, and at one ſtroke ſevered his mother's head from her body, with the profeſſed view, as entertained and avowed both by parent and ſon, that the mother's ſpirit, excited by the beating of a large drum during forty days, might for ever haunt, torment, and purſue to death GOWRY and the others concerned with him. The laſt words which the mother pronounced were, that ſhe would blaſt the ſaid GOWRY and thoſe connected with him.

The violence aſſerted to have been committed by the emiſſaries of GOWRY, in forcibly entering the female apartments of BEECHUK and ADHER, might be deemed an indignity of high provocation; but they appear to have conſidered this outrage as of leſs importance than the loſs of their money, which might and would have been recovered with due ſatisfaction, by application to the Court of Juſtice in *Benares*. The act which they perpetrated had no other ſanction than what was derived from the local prejudices of the place where they reſided: it was a crime againſt their religion: and the two brothers themſelves quoted an inſtance of a *Bráhmen*, who ſix or ſeven years before had loſt his caſt and all intercourſe with the other *Bráhmens*, for an act of the ſame nature. But in truth BEECHUK and ADHER, although *Bráhmens*, had no knowledge or education ſuitable to the high diſtinction of their caſt, of which they preſerved the pride only; being as groſsly ignorant and prejudiced as the meaneſt peaſants in any part of the world. They ſeemed ſurprized when they heard the doom of forfeiture of caſt pronounced againſt them by a learned *Pandit*, and openly avowed that, ſo far from conceiving they had committed a barbarous crime, both they and their mother conſidered their act as a vindication of their honour, not liable to any religious penalty.

The Society will obſerve, with ſome ſurprize, that the perpetrators of the ſeveral acts which I have related, where *Bráhmens*. Theſe facts took place within three

three diſtricts only of the province of *Benares*, named *Kuntel*, *Buddhooee*, and *Kereat Sekur*. I mention theſe particulars that I may not lead any perſon into a common error of deducing general concluſions from partial circumſtances. In *Bengal* and *Behar*, where the paſſions of jealouſy, pride, and revenge, ſometimes produce very fatal conſequences, I recollect no inſtance where the efforts of their violence have been transferred from the objects which excited it to others that were innocent, as in the preceding caſes.

That the practice of Infanticide ſhould ever be ſo general as to become a cuſtom with any ſect or race of people, requires the moſt unexceptionable evidence to gain belief: and I am ſorry to ſay that the general practice, as far as regards female infants, is fully ſubſtantiated with reſpect to a particular tribe on the frontiers of *Juanpore:* a diſtrict of the province of *Benares*, adjoining to the country of *Oude*. A race of *Hindus* called *Rajekoomars* reſide here; and it was diſcovered in 1789 only, that the cuſtom of putting to death their female offspring, by cauſing the mothers to ſtarve them, had long ſubſiſted, and did actually then very generally prevail amongſt them. The reſident at *Benares*, in a circuit which he made through the country where the *Rajekoomars* dwell, had an opportunity of authenticating the exiſtence of the cuſtom from their own confeſſions: he converſed with ſeveral: all unequivocally admitted it, but all did not fully acknowledge its atrocity; and the only reaſon which they aſſigned for the inhuman practice, was the great expence of procuring ſuitable matches for their daughters, if they allowed them to grow up. It is ſome ſatisfaction to add, that the cuſtom, though general, was not univerſal, as natural affection, or ſome other motive, had induced the fathers of ſome *Rajekoomar* families to bring up one, or more, of their female iſſue; but the inſtances where more than daughter had been ſpared, were very rare. One village only furniſhed a complete exception to the general cuſtom; and the *Rajekoomar* informant, who noticed it, ſuppoſed that the inhabitants had ſworn, or ſolemnly pledged themſelves to each other, to bring up their females. In proof of his aſſertion in favour of the village in queſtion, he added, that ſeveral old maids of the *Rajeekoomar* tribe then actually exiſted there, and that their celibacy proceeded from the difficulty of procuring huſbands for them, in conſequence of the great expences attending the marriages of this claſs of people.

It will naturally occur to the Society to aſk, by what mode a race of men could be continued under the exiſtence of the horrid cuſtom which I have deſcribed. To this my documents enable me to reply, partly from the exceptions to the general cuſtom,

cuſtom, which were occaſionally admitted by the more wealthy *Rajekoomars*; more particularly thoſe who happened to have no male iſſue; but chiefly by intermarriages with other *Rajepoot* families, to which the *Rajekoomars* were compelled by neceſſity.

A prohibition enforced by the denunciation of the ſevereſt temporal penalties, would have little efficacy in aboliſhing a cuſtom which exiſted in oppoſition to the feelings of humanity and natural affection; and the ſanction of that religion which the *Rajekoomars* profeſſed was appealed to, in aid of the ordinances of civil authority. Upon this principle an engagement, binding themſelves to deſiſt in future from the barbarous practice of cauſing the death of their female children, was prepared, and circulated amongſt the *Rajekoomars* for their ſignature; and as it was alſo diſcovered that the ſame cuſtom prevailed, though in a leſs degree, amongſt a ſmaller tribe of people alſo, within the province of *Benares*, called *Rajebunſes*, meaſures were adopted at the ſame time, to make them ſenſible of its iniquity, and to procure from them a ſubſcription ſimilar to that exacted from the *Rajekoomars*.

The following is a copy of the engagement which the latter ſubſcribed:—

" Whereas it hath become known to the Government of the Honourable Eaſt " India Company, that we of the tribe of *Rajekoomars* do not ſuffer our female " children to live; and whereas this is a great crime, as mentioned in the *Brehma* " *Bywant Pooran*, where it is ſaid that killing even a *Fetus* is as criminal as killing " a *Bráhmen*; and that for killing a female, or woman, the puniſhment is to ſuffer " in the *nerk*, or hell, called *Kat Shootul*, for as many years as there are hairs on " their female's body, and that afterwards that perſon ſhall be born again, and ſucceſſively become a leper, and be afflicted with the *Jukhima*; and whereas the " Britiſh Government in *India*, whoſe ſubjects we are, have an utter deteſtation " of ſuch murderous practice, and we do ourſelves acknowledge, that although " cuſtomary among us, they are highly ſinful, we do therefore hereby agree not " to commit any longer ſuch deteſtable acts; and any among us (which God for- " bid) who ſhall be hereafter guilty thereof, or ſhall not bring up and get our " daughters married, to the beſt of our abilities, among thoſe of our caſt, ſhall be " expelled from our tribe, and ſhall neither eat nor keep ſociety with us, beſides " ſuffering hereafter the puniſhments denounced in the above *Pooran* and *Shaſter*. " We have therefore entered into this agreement.

" *Dated the 17th December*, 1789."

A re-

A record of the various ſuperſtitious ceremonies which prevail throughout Hinduſtan, would form a large and curious volume; but as all the preceding inſtances which I have related, are taken from tranſactions in *Benares*, I cannot refrain from mentioning the ſuperſtitious notions of the people of that province regarding the ſugar-cane: which proves an ignorance that may be admitted in palliation of groſſer errors. The narrative is a mere extract from an official record, with an omiſſion of ſome words, and ſome trifling verbal alterations.

As it is uſual with the ryots, or huſbandmen, to reſerve a certain portion of the canes of the preceding year to ſerve as plants, for their new cultivation, it very frequently happens that inconſiderable portions of the old cane remain unapropriated. Whenever this happens, the proprietor repairs to the ſpot on the 25th of *Jeyte*, or about the 11th of *June*, and having ſacrificed to NAGBELE, or the tutelary deity of the cane, he immediately ſets fire to the whole, and is exceedingly careful to have this operation executed in as complete and efficacious a manner as poſſible.

This act is performed from an apprehenſion, that if the old canes were allowed to remain in the ground beyond the 25th of *Jeyte*, they would in all probability produce flowers and ſeeds; and the appearance of theſe flowers they conſider as one of the greateſt misfortunes that can befal them.

They unanimouſly aſſert, that if the proprietor of a plantation ever happens to view even a ſingle cane therein in flower after the 25th of *Jeyte*, the greateſt calamities will befal himſelf, his parents, his children, and his property; in ſhort, that death will ſweep away moſt of the members, or indeed the whole of his family, within a ſhort period after this unfortunate ſpectacle. If the proprietor's ſervant happens to ſee the flower, and immediately pulls it from the ſtalk, buries it in the earth, and never reveals the circumſtance to his maſter; in this caſe they believe that it will not be productive of any evil conſequence. But ſhould the matter reach the proprietor's knowledge, the calamities before ſtated muſt, according to the prevailing ideas, infallibly happen.

In ſupport of this belief, many of the moſt aged zemindars and ryots in the province of *Benares*, recited ſeveral inſtances of the above nature, which they affirmed to have actually happened during their own time; and moreover, that they had been perſonal witneſſes to the evils and misfortunes which befel the unhappy victims of the deſcription alluded to.

When we reflect how generally credit was given to the power of witchcraft, long after the revival of letters in *Europe*, and that names of great repute for learning and abilities

abilities are found amongſt its defenders, we ſhall not be ſurprized that charms and amulets are worn in this country by men of ſuperior rank and education; that aſtrologers are conſulted to name the fortunate hour for commencing a journey or expedition; and that the faſcinating influence of an evil eye upon the human conſtitution, as well as the power of witchcraft, is admitted by the vulgar in general. Fortunately, however, the practice is not ſuppoſed to bear any proportion to the belief of the power; although two recent inſtances occur to my recollection, of individuals having been ſacrificed to this popular deluſion; or at leaſt the imputation of witchcraft was made the pretence for depriving them of life.

But the judicial records contain a caſe of great enormity, in which five women were put to death for the ſuppoſed practice of ſorcery. I ſhall ſubmit the circumſtances of this tranſaction, with ſome detail, before the Society, premiſing that it happened in a diſtrict of *Ramgur*, the leaſt civilized part of the Company's poſſeſſions, amongſt a wild and unlettered tribe, denominated *Soontaar*, who have reduced the detection and trial of perſons ſuſpected of witchcraft to a ſyſtem.

Three men of the caſt of *Soontaar*, were in the year 1792 indicted for the murder of five women; the priſoners without heſitation confeſſed the crime with which they were charged, and pleaded in their defence that with their tribes it was the immemorial cuſtom and practice to try perſons notorious for witchcraft. That for this purpoſe an aſſembly was convened of thoſe of the ſame tribe, from far and near, and if after due inveſtigation the charge was proved, the ſorcerers were put to death, and no complaint was ever preferred on this account to the ruling power. That the women who were killed had undergone the preſcribed form of trial, were duly convicted of cauſing the death of the ſon of one of the priſoners by witchcraft, and had been put to death by the priſoners, in conformity to the ſentence of the aſſembly.

The proſecutors, who, agreeably to the forms of the *Mohammedan* law, were the relations of the deceaſed women, declared they had no charge to prefer againſt the priſoners, being ſatisfied that their relations had really practiſed ſorcery.

The cuſtom pleaded by the priſoners was fully ſubſtantiated by the teſtimony of a great number of witneſſes, who recited ſpecific facts in ſupport of it, without any denial or diſagreement; and from the collective evidence exhibited in the courſe of the enquiry, the following curious and extraordinary circumſtances appeared:—

That the ſucceſſive demiſe of three or four young people in a village, led to a ſuſpicion

ſuſpicion of ſorcery as the cauſe of it; and the inhabitants taking alarm were upon the watch to detect the witches. They were generally diſcovered dancing naked at midnight by the light of a lamp, with a broom tied round their waiſts, either near the houſe of a ſick perſon, or on the outſide of the village.

To aſcertain with a greater degree of certainty the perſons guilty of practiſing witchcraft, the three following modes are adopted:

Firſt. Branches of the *Saul* tree, marked with the names of all the females in the village, whether married or unmarried, who have attained the age of twelve years, are planted in the water in the morning, for the ſpace of four hours and a half, and the withering of any of theſe branches is proof of witchcraft againſt the perſon whoſe name is annexed to it.

Secondly. Small portions of rice enveloped in cloths, marked as above, are placed in a neſt of white ants; the conſumption of the rice in any of the bags, eſtabliſhes ſorcery againſt the woman whoſe name it bears.

Thirdly. Lamps are lighted at night; water is placed in cups made of leaves, and muſtard-ſeed and oil is poured, drop by drop, into the water, whilſt the name of each woman in the village is pronounced; the appearance of the ſhadow of any woman on the water, during this ceremony, proves her a witch.

Such are the general rules for aſcertaining thoſe who practiſe witchcraft. In the inſtance which I have quoted, the witneſſes ſwore, and probably believed, that all the proofs againſt the unfortunate women had been duly verified: they aſſert in evidence, that the branches marked with the names of the five women accuſed were withered; that the rice in the bags having their ſpecific names, was devoured by the white ants, whilſt that in the other bags remained untouched; that their ſhadows appeared on the water, on the oil being poured upon it whilſt their names were pronounced; and farther, that they were ſeen dancing at midnight in the ſituation above deſcribed.

It is difficult to conceive that this coincidence of proof could have been made plauſible to the groſſeſt ignorance, if experience did not ſhew that prepoſſeſſion will ſuperſede the evidence of the ſenſes.

The following cuſtom would be too trivial for notice, if it were not ſtrongly deſcriptive of the ſimplicity and ignorance which mark the character of the generality of the inhabitants of *Ramgur*.

From habitual neglect in aſcertaining the quantities of land held in leaſe, and in defining with accuracy their reſpective tenures, frequent diſputes ariſe between

the inhabitants of different villages regarding their boundaries: to determine them, a reference is uſually made to one or more of the oldeſt inhabitants of the adjacent villages; and if theſe ſhould not agree in their deciſion, other men are ſelected from the inhabitants of the villages claiming the diſputed ground; and the trial proceeds as follows: Holes are dug in the conteſted ſpot, and into theſe holes each of the choſen men puts a leg, and the earth is then thrown in upon it; and in this ſituation they remain until one either expreſſes a wiſh to be releaſed, or complains of being bitten or ſtung by ſome inſect. This decides the conteſt, and the property of the ground is adjudged to belong to that village the inhabitant of which goes through the trial with the moſt fortitude, and eſcapes unhurt by inſects.

If the preceding detail has no relation to ſcience, it is at leaſt deſcriptive of manners; and in availing myſelf of the opportunities afforded by official occupations (which is all indeed that theſe occupations admit) to contribute my portion to the reſearches of the Society, my example will, I hope, be imitated by thoſe who with the ſame, or greater opportunities, poſſeſs more knowledge, ability, and leiſure.

NOTE.

HAVING lately received ſome further documents on the ſubject of the *Dhurna*, which I did not poſſeſs when the preceding paper was read to the Society, I have extracted from them what appears to me requiſite to elucidate this extraordinary practice. From theſe documents it appears that ſeveral caſes of *Dhurna* had been brought before the Provincial Court of Juſtice at *Benares*, and as a penalty had been annexed to the performance of this mode of importunity, it became neceſſary to define with preciſion the rules conſtituting *Dhurna*, according to the *Shaſter* and *Uſage*.

For this purpoſe a queſtion was propoſed to ſeveral *Pandits*, inhabitants of the province and city of *Benares*; and the anſwer ſubſcribed by twenty-three *Pandits* is as follows:

" Any one who ſits *Dhurna* on another's door, or in his houſe for the realization of a debt, or for other purpoſe, in which the party ſitting takes with him ſome weapon or poiſon, and ſits down; nor does he eat himſelf, nor allow the party againſt whom he is ſitting, or his family, to eat; nor does he allow any perſon

perſon ingreſs into that perſon's houſe nor egreſs from it, and addreſſing himſelf in terms of the ſtrongeſt oaths to the people of the houſe, he ſays, "If any of thoſe "of your houſe ſhall eat victuals, or go into your houſe, or go out of it, I ſhall "either wound myſelf with this weapon, or ſwallow this poiſon;" and it does ſometimes happen that both theſe events take place, and that he who ſits in *Dhurna* is not to remove from it without the intreaty of thoſe on whom he is ſitting, or the order of the *Hakim*. Whenever all the requiſites above mentioned are found united, they conſtitute *Dhurna*; but if any one of them be wanting, that is not *Dhurna*, but *Tuckaza* or *Dunning*: and as no text of the *Shaſter* hath been found concerning *Dhurna*, wherefore we have delivered the requiſites thereof according to the common cuſtom and practice."

There is ſome difference in the opinions of other *Pandits* as to what is underſtood to conſtitute *Dhurna*; but the quotation which I have inſerted, appears to me to contain the moſt authentic information on this ſubject.

The Society will obſerve that the practice is not ſpecifically pointed out in the *Shaſter*, but has the ſanction of uſage only.

The following inſtance is of late occurrence. In *January* 1794, MOHUN PANREH, an inhabitant of a diſtrict in the province of *Benares*, ſat down in *Dhurna* before the houſe of ſome *Rajepoots*, for the purpoſe of obtaining the payment of *Birt*, or a charitable ſubſiſtence to which he had a claim, and in this ſituation deſtroyed himſelf by ſwallowing poiſon. Some of the relations of the deceaſed retained his corpſe for two days before the houſe of the *Rajepoots*; who thus were compelled to forego taking ſuſtenance, in order to induce them to ſettle the *Birt* on the heir of the deceaſed *Bráhmen*.

DESCRIPTION OF THE YAK OF TARTARY, CALLED SOORA-GOY, OR THE BUSHY-TAILED BULL OF TIBET.

By Lieutenant SAMUEL TURNER.

THE *Yak* of *Tartary*, called *Soora-Goy* in *Hindoſtan*, and which I term the buſhy-tailed bull of *Tibet*, is about the height of an *Engliſh* bull, which he reſembles in the

the figure of the body, head, and legs. I could diſcover between them no eſſential difference, except only that the *Yák* is covered all over with a thick coat of long hair. The head is rather ſhort, crowned with two ſmooth round horns, that, tapering from the ſetting-on, terminate in ſharp points, arch inwardly, and near the extremities are a little turned back; the ears are ſmall; the forehead appears prominent, being adorned with much curling hair; the eyes are full and large; the noſe ſmooth and convex; the noſtrils ſmall; the neck ſhort, deſcribing a curvature nearly equal both above and below; the withers high and arched; the rump low. Over the ſhoulders riſes a bunch, which at firſt ſight would ſeem to be the ſame kind of exuberance peculiar to the cattle of *Hindoſtan*; but in reality it conſiſts in the ſuperior length of the hair only, which as well as that along the ridge of the back to the ſetting-on of the tail, grows long and erect, but not harſh. The tail is compoſed of a prodigious quantity of long flowing gloſſy hair deſcending to the hock, and is ſo extremely well furniſhed, that not a joint of it is perceptible; but it has much the appearance of a large bunch of hair artificially ſet on. The ſhoulders, rump, and upper part of the body is clothed with a ſort of thick ſoft wool, but the inferior parts with ſtraight pendant hair, that deſcends below the knee; and I have ſeen it ſo long in ſome cattle which were in high health and condition, as to trail upon the ground. From the cheſt, between the forelegs, iſſues a large pointed tuft of hair, growing ſomewhat longer than the reſt. The legs are very ſhort. In every other reſpect, hoofs, &c. he reſembles the ordinary bull. There is a great variety of colours amongſt them, but black or white are the moſt prevalent. It is not uncommon to ſee the long hair upon the ridge of the back, the tail, tuft upon the cheſt, and the legs below the knee white, when all the reſt of the animal is jet black.

Theſe cattle, though not large boned, from the profuſe quantity of hair with which they are provided, appear of great bulk. They have a down heavy look, but are fierce, and diſcover much impatience at the near approach of ſtrangers. They do not low loud (like the cattle of *England)* any more than thoſe of *Hindoſtan*; but make a low grunting noiſe ſcarcely audible, and that but ſeldom, when under ſome impreſſion of uneaſineſs. Theſe cattle are paſtured in the coldeſt parts of *Tibet*, upon the ſhort herbage peculiar to the tops of mountains and bleak plains. That chain of lofty mountains ſituated between lat. 27 and 8, which divide *Tibet* from *Bootan*, and whoſe ſummits are moſt commonly clothed with ſnow, is their favourite haunt. In this vicinity the ſouthern glens afford them food and ſhelter during

during the ſeverity of winter; in milder ſeaſons the northern aſpect is more congenial to their nature, and admits a wider range. They are a very valuable property to the tribes of illiterate *Tartars*, who live in tents and tend them from place to place, affording their herdſmen a mode of conveyance, a good covering, and ſubſiſtence. They are never employed in agriculture, but are extremely uſeful as beaſts of burthen; for they are ſtrong, ſure footed, and carry a great weight. Tents and ropes are manufactured of their hair; and I have, though amongſt the humbleſt rank of herdſmen, ſeen caps and jackets worn of their ſkin. Their tails are eſteemed throughout the *Eaſt*, as far as luxury or parade have any influence on the manners of the people; and on the continent of *India* are found, under the denomination of *Chowries*, in the hands of the meaneſt grooms as well as occaſionally in thoſe of the firſt miniſters of ſtate. Yet the beſt requital with which the care of their keepers is at length rewarded for ſelecting them good paſtures, is in the abundant quantity of rich milk they give, yielding moſt excellent butter, which they have a cuſtom of depoſiting in ſkins or bladders, and excluding the air: it keeps in this cold climate during all the year; ſo that after ſome time tending their flocks, when a ſufficient ſtock is accumulated, it remains only to load their cattle and drive them to a proper market with their own produce, which conſtitutes, to the utmoſt verge of *Tartary*, a moſt material article of merchandize.

A DESCRIPTION OF THE JONESIA.

By Doctor ROXBURGH.

Cl. HEPTANDRIA MONOGYNIA.

ESSENTIAL CHARACTER.

CALYX, two-leaved; Corol, one-petaled, Piſtil-bearing; baſe of the Tube impervious; Stamens long, aſcending, inſerted into the margin of a glandulous nectarial ring, which crowns the mouth of the tube, the uppermoſt two of which more diſtant; Style declining. Legume turgid.

Conſecrated

Conſecrated to the remembrance of our late Preſident, the moſt juſtly celebrated Sir WILLIAM JONES, whoſe great knowledge of this ſcience, independent of his other incomparable qualifications, juſtly entitles his memory to this mark of regard.

JONESIA As'o'CA.

ASJOGAM. Hort, Mat. 5, P. 117, Tab. 59.

As'o'CA, is the *Sanſcrit* name.

VANJULA, a ſynonime.

RUSSUK of the *Bengaleſe*.

Found in gardens about *Calcutta*, where it grows to be a very handſome middling ſized ramous tree; flowering time the beginning of the hot ſeaſon; Seeds ripen during the rains. The plants and ſeeds were, I am informed, originally brought from the interior parts of the country, where it is indigenous.

Trunk, erect, though not very ſtraight. Bark dark brown, pretty ſmooth. Branches numerous, ſpreading in every direction, ſo as to form a moſt elegant ſhady head.

Leaves alternate, abruptly feathered, ſeſſile, generally more than a foot long; when young pendulous and coloured.

Leaflets oppoſite, from four to ſix pair, the lowermoſt broad lanced, the upper lanced; ſmooth, ſhining, firm, a little waved, from four to eight inches long.

Petiole common, round and ſmooth.

Stipule axillary, ſolitary; in fact a proceſs from the baſe of the common petiole, as in many of the graſſes and monandriſts, &c.

Umbels terminal and axillary; between the ſtipule and branchlet, globular, crowded, ſubſeſſile, erect.

Bracts, a ſmall hearted one under each diviſion of the umbel.

Peduncle and pedicels ſmooth, coloured.

Flowers very numerous, pretty large; when they firſt expand, they are of a beautiful orange colour, gradually changing to red, forming a variety of lovely ſhades; fragrant during the night.

Calix perianth, below two-leaved, leaflets ſmall, nearly oppoſite, coloured, hearted, bract-like, marking the termination of the pedicel, or beginning of the tube of the corol.

Corol one-petal'd, funnel-form; tube ſlightly incurved, firm and fleſhy, tapering towards the baſe (club-funnel-ſhaped) and there impervious; border four-parted; diviſion ſpreading, ſuborbicular; margins moſt ſlightly woolly: one-third the length of the tube.

Nectary a ſtimeniferous and piſtiliferous ring crowns the mouth of the tube.

Stamens, filaments (generally) ſeven, and ſeven muſt, I think, be the natural number; viz. three on each ſide, and one below, above a vacancy, as if the place of an eighth filament, and is occupied on its inſide by the piſtil; they are equal, diſtinct, aſcending, from three to four times longer than the border of the corol.

Anthers, uniform, ſmall, incumbent.

Piſtil, germ oblong, pediceled; pedicel inſerted into the inſide of the nectary, immediately below the vacant ſpace already mentioned; Style nearly as long as the ſtamens, declining; Stigma ſimple.

Pericarp, legume ſcimetar form, turgid, outſide reticulated, otherwiſe pretty ſmooth, from ſix to ten inches long, and about two broad.

Seeds generally from four to eight, ſmooth; grey, ſize of a large cheſnut.

Note. Many of the flowers have only the rudiment of a piſtil: a ſection of one of theſe is ſeen at D.

REFERENCES.

A. *A branchlet natural ſize.*

B. *A ſingle flower a little magnified,* aa *the calyx.*

C. *A ſection of the ſame, exhibiting four of the ſtamens,* 1.1.1.1. *the piſtil* 2, *and how far the tube is perforated.*

D. *A ſimilar ſection of one of the abortive flowers;* 3 *is the abortive piſtil.*

E. *The ripe legume opening near the baſe, natural ſize. Note, the ſpace between the* b *and* c *marks the original tube of the coral.*

F. *One of the ſeeds natural ſize.*

G. *The baſe of the common petiole, with its ſtipule;* aa *the petioles of the lower pair of leaflets.*

Aſtronomical Obſervations, by WILLIAM HUNTER, *Eſq.*

LATITUDES OBSERVED.

1793.	*PLACES.*	*Sun or Star.*	*Latitude.*	*Remarks.*
Septem. 27	*Khodabgunge*, Camp on the South Bank of the Caly-Nuddee: Gate N. 58 W. 4,1 Furlongs.	☉ M. A.	27° 10′ 00″	Clear. Moderate. By Survey, difference of Latitude between *Futtehgurh* and *Khodabgunge* is 11′ 1″, *Khodabgunge* and *Jelalabad* 4′ 54″. Making *Futtehgurh* 27° 22′ 8″, theſe gives *Khodabgunge* 27° 11′ 7″ and *Jelalabad* 27° 6′ 13″. As the laſt agrees ſo exactly with the obſervation, I think the Latitude obſerved at *Khodabgunge* was too little.
28	*Jelalabad.* Gate N. 52 W. 1,4 F.	☉ M. A.	27 6 9	Clear. Moderate.
29	*Meerin-ca-Seray*, N. 43 W. 2,7 F.	Do.	27 1 17	Do. Calm.
30	*Poorooah*, oppoſite Nanamow; which bears S. 73 W. 12 Fs.	Do.	26 53 42	Do. Moderate.
October 2	*Haſan-Gunge*, Gate N. 62 W. 1 F.	Do.	26 46 18	Do. Do.
5	*Lucknow*, Mr. *Taylor's* Houſe.	Do.	26 51 11	Do. Do.
17	*Lucknow*, Mr. *Taylor's* Houſe.	Do.	26 51 1	Do. Do.
Decem. 12	*Futtehgurh*, my Bungalah.	Do.	27 22 23	Do. Do.
22	*Jelalabad* (Station of Sep. 28.)	Do.	27 5 59	Do. Do.
23	*Meerin-ca-Seray* (Do. of 29.)	Do.	27 1 19	Do. Do.
25	*Tekeah*, N. 85 W 0,8 F.	Do.	26 50 59	Do. Windy.
1794, Jan. 16	*Sirſ'hirra*, W. N. W. 2 Fs.	Do.	26 53 57	Do. Moderate.
17	*Sufdergunge*, S. 40 W. 1 F.	Do.	26 55 11	Do. Windy.
18	*Derriabad*, S. 64 W. 1,5 F.	Do.	26 53 37	Do. Do.
	Ditto,	☉ 2 Alts.	26 53 31	Do. Do.
19	*Shujah-Gunge*, N. 28 W.—S. 72 W. neareſt diſtance (S. end) 0,8 F.	☉ M. A	26 49 35	Do. Do.
Jan 20	*Noray*, N. E.—S. 55 W. neareſt 30 Yds.	Do.	26 46 45	Do. Do.
21	*Surya-koond*, Temple of the Sun, N. 47 W. 2,16 Fs.	Do.	26 45 6	Do. Do.
22	*Begum-Gunge*, N. 48 W.—S. 27 W. neareſt diſtance 50 Yards.	Do.	26 39 39	Do. Moderate.
23	*Tandah*, Bungalahs.	Do.	26 33 18	Do. Do.
25	Ditto, Do.	Do.	26 33 29	Do. Do.
26	*Birriar Gunge*, Gate S. 70 E. 1,4 Fs.	Do.	26 38 40	Do. Do.
27	*Jelal-ud-deen-nagur*, S. 66 E. 1,8 Fs.	Do.	26 43 5	Do. Do.
28	*Oudh.* Tomb of *Burla*, N. 56 W. 1,8 Fs.	Do.	26 48 43	Do. Do.
29	Do. at Tomb of *Burla*.	Do.	26 48 42	Do. Do.
30	*Fyzabad*, Octagon Tower at *Rumnah*.	Do.	26 48 32	Do. Windy.
Jan. 31	*Fyzabad*, Octagon Tower in *Rumnah*.	Do.	26 48 17	Do. Moderate. Sun had paſſed the Meridian about three Minutes. Obſervation cloſe.
Feb. 1	*Noray*, N 42 E.—S. 68 E. 1. F.	Do.	26 46 50	Thin flitting clouds; calm.
2	*Shujah-Gunge*, Gate S. 48 E. 4,9 F.	Do.	26 50 3	Clear. Moderate.
3	*Derriabad*, Gate S. 80 E. 1,3 F.	Do.	26 54 15	Do. Windy.
4	*Sufder-Gunge*, Stat. of Jan. 17.	Do.	26 55 45	Do. Do.
March 30	*Bewar.*	β. U. M.	27 13 41	Do. Moderate.
31	*Meinpoory*, Mohcumgunge, S. 31—73 W. 2,75 F.	α. Hydræ.	27 14 30	Do. Do.
April 1	Ditto, Do.	β. U. M.	27 13 21	Do. Windy.
2	*Boongaung.*	α. Hydræ.	27 15 30	Do. Moderate.

1794.	PLACES.	Sun or Star.	Latitude.			Remarks.	
April 3	*Mahommedabad*,	α Hydræ.	27	18	8	Clear.	Moderate.
May 29	*Dawah*, Mr. BECHER's Bungalah,	α ♍	26	51	6	Do.	Do.
30	Ditto, Do.	Do.	26	51	6	Do.	Do.
	Ditto, Do.	α Draconis	26	50	47	Do.	Do.
31	*Poorah*, N. 68 W. 4 Fs.	α ♍	26	44	5	Do.	Do.
June 1	*Chobepoor*,	α ♍	26	36	41	Do.	Do.
2	*Kanhpoor*, Mr. YELD's Bungalah,	α ♍	26	28	37	Do.	Do.
5	Ditto, Do.	α ♍	26	27	56	Do.	Windy.
12	*Oonam*, S. W. 3 Fs.	Do.	26	33	26	Do.	Moderate.
13	*Jelooter*, Fort N. 53 W. 7,7 Fs.	Do.	26	41	57	Do.	Windy.
14	*Noel-Gunge*, Gate S. 20 W. 2 Fs.	Do.	26	47	42	Do.	Moderate.
Sept. 4	*Meah-Gunge* (near Jelooter) Weſt Gate No. 1,75 Fs.	α Piſc. Auſt.	26	38	4	Do.	Calm.
11	*Kahnpoor*, Mr. *Yeld*'s Bungalah.	Do.	26	28	38	Do.	Do.
15	Ditto, Do.	Do.	26	28	56	Do.	Moderate.
16	*Rampoor*, near Muſwaſee.	Do.	26	30	49	Do.	Do.
Oct. 17	*Eſewun*, S. 70 E. 4,1 F.	☉ M. A.	26	48	50	Do.	Do.
18	*Aterdhinee*, N. 42 W. 6 Fs.	Do.	26	50	48	Do.	Do.
19	*Sultangunge*, S. 30 W.—S. 60 E. 1,9 Fs.	Do.	26	58	46	Do.	Light Breeze.
20	*Purerah*, South-eaſt angle S. 30 W. 4,4 Fs.	Do.	27	7	16	Do.	Calm.
21	*Liſhkireepoor*, S.—S. 34 E. 1,2 Fs.	Do.	27	1	39	Do.	Moderate.
22	*Meerin-ca-ſeray*, S. E. 1 F.	Do.	27	1	59	Do.	Do.
23	*Sumjum*, north end of Gunge.	Do.	27	8	27	Do.	Do.

A DISSERTATION ON SEMIRAMIS, THE ORIGIN OF MECCA, &c.

FROM THE HINDU SACRED BOOKS.

By Lieut. FRANCIS WILFORD.

IN the *Scánda-purána* and *Vis'va-ſára pracáſa*, or *declaration of what is moſt excellent in the world*, we find the following legends, which have an evident relation to the origin of *Semiramis*, the *Syrian* dove, *Ninus*, and the building of *Niniveh*, *Hierapolis*, and *Mecca*, &c.

MAHA'-DE'VA and his conſort PA'RVATI, with a view to do good to mankind, quitted their divine abode on *Cailaſa*, and proceeding towards the north, alighted on the ſummit of the *Niſhádа* mountains, where they found the *Devátas* ready to receive them, with a numerous retinue of Celeſtial Nymphs, and Heavenly Quiriſters. MAHA'-DE'VA was ſo ſtruck with the beauty of ſome of the *Apſaras*, and his looks were ſo expreſſive of his internal raptures, that PA'RVATI, unable to

conceal her indignation, uttered the moſt virulent reproaches againſt him. Conſcious of the impropriety of his behaviour, MAHA'-DE'VA uſed every endeavour to pacify her; he humbled himſelf; he praiſed her, and addreſſed her by the flattering appellation of MAHA'-BHA'GA; but to no purpoſe. She fled into *Cuſha-duíp*, on the mountains of *Vahni-vyápta*, and ſeating herſelf in the hollow trunk of a *Samì*-tree, performed *Tapaſyá* (or auſtere devotion) for the ſpace of nine years; when fire ſpringing from her, pervaded with rapid violence the whole range of mountains, in ſo much, that men and animals were terrified, and fled with the utmoſt precipitation. DE'VI, unwilling that her devotion ſhould prove a cauſe of diſtreſs to the animal creation, recalled the ſacred flame, and confined it in the *Samì*-tree. She made the hollow of that tree her place of abode and dalliance; and hence ſhe is called SAMI-RA'MA', or ſhe who dallies in the *Samì*-tree.

The fugitives returning, performed the *Pujà* in adoration of her, with ſongs in her praiſe. The flame confined in the *Samì*-tree ſtill remains in it; and the *Devátás* are highly delighted with the fire, which is lighted from the *Aranì* (or cubic wood of that tree). The *Aranì* is the mother of fire, and is produced from the *Samì*-tree. From that time, this ſacred tree gives an increaſe of virtue, and beſtows wealth and corn. In the month of *As'wina*, or *Cooar*, the tenth of the firſt fifteen days of the moon is kept holy, and *Pujà* is made to SAMI-RA'MA' and to the *Samì*-tree; and thoſe who perform it obtain the object of their deſires. This ſacred rite I have hitherto kept concealed from the world, ſays MAHA'-DE'VA, but now I make it known for the good of mankind; and whoſoever performs it will be victorious over his enemies for the ſpace of one year.

During theſe tranſactions, VI'SVE'SWARA-MAHA'-DE'VA, or CA'SI'-PATI (that is to ſay), MAHA'-DE'VA, the lord of the world and ſovereign of *Cás'i* or *Benares)* viſited the country of PURUSHOTAMA, in *Utcola-déſa* or *Oriſſa*; which he was ſurprized to find overſpread with long graſs, and without inhabitants. He reſolved to deſtroy the long graſs, and for this purpoſe, aſſuming the diminutive ſhape of a dove, with an angry countenance, commenced the performance *Tapaſyà*; his conſort DE'VI' alſo transformed herſelf into a bird of the ſame ſpecies; and from that time they were known to mankind, and worſhipped under the titles of CAPO'TE'SWARA and CAPO'TE'SI' or ISWARA and ISI', in the ſhape of a dove. They ſet fire to the *Cuſha*, or long graſs, and the country became like *Vindra-van* near *(Muttra)* and was ſoon filled with inhabitants. The ſpot where they performed their *Tapaſyà*, is called to this day *Capóta-ſt'hali*, or the place

place of the dove. It is a celebrated place of worſhip, and, as I am informed, about five coſs from *Jagannát'ha*.

Almoſt the whole univerſe was likewiſe at this time overſpread with long graſs; and to deſtroy it, MAHA'-DE'VA, with his conſort, reſolved to travel round the world. They accordingly proceeded into *Cuſha-duíp*, which they found thinly inhabited by a few *Mlech'has*, or impure tribes, and the *Yavanas*, who concealed their booty in the graſs which covered the country.

MAHA'-DE'VA took compaſſion on them, and conſidering their ſufferings in this inhoſpitable country as a ſort of *Tapaſyá*, he reſolved to beſtow *Mócſha*, or eternal bliſs, on them: for this purpoſe he aſſumed the character and countenance of MO'CSHE'SWARA or ISWARA, who beſtows *Mócſha*; and directed his conſort CAPO'TE'SI, who is alſo called *Mahá-bhága*, to go to *Vahni-ſt'hán*, on the borders of *Cuſha-duípa*; there to make *Tapaſyà*, in order to deſtroy the long graſs. Accordingly ſhe went into *Vahni-ſt'hán*; and that ſhe might effect it without trouble to herſelf, ſhe aſſumed another form: from which circumſtance ſhe was named ANA'-YA'SA'. In this character ſhe ſeated herſelf on a beautiful hill, and there made *Tapaſyà* for many days. At laſt fire ſprung from her devotion, and its preſiding power ſtanding before her, ſhe directed him to deſtroy the *Cuſha*; when the hills were ſoon in a blaze, and the *Yavanas* and other *Mléch'has* obtaining *Mócſha*, were reunited to the Supreme Being, without labour or effect on their part; that is to ſay, they were involved in the general conflagration and deſtroyed.

When the graſs was conſumed, ANA'YA'SA ordered the clouds to gather and pour their waters on the land, which was ſoon overflowed. The waters then retired, and the four great tribes came into *Cuſha-duíp*, where they ſoon formed a powerful nation, and became rich and happy. After the conflagration, all ſorts of metals and precious ſtones were found throughout the country. The countenance of ANA'YA'SA'-DE'VI is that of fire; and a moſt divine form it is.

The inhabitants ſoon after deviating from the paths of rectitude, became like the *Mléch'has:* and the *Yavanas* re-entered *Cuſha-duíp*, plundering and laying waſte the whole country. The four tribes applied to ANA'YA'SA', offered praiſes to her, and requeſted ſhe would protect them againſt the *Yavanas*, and dwell among them. MAHA'-BHA'GA' aſſented, and the ſpot which ſhe choſe for her abode, is called *Mahá-bhágá-ſt'hán*, or the place of MAHA'-BHA'GA'.

In the mean time MAHA'-DE'VA was at *Mócſha-ſt'hán*, or *Mócſhéſa*, beſtowing *Mócſha* on all who came to worſhip there. It is a moſt holy place; and there

MAHA'-

MAHA'-DE'VA laid aſide the countenance and ſhape of CAPOTE'SWARA, and aſſumed that of MOCSHE'WARA.

Among the firſt votaries of MAHA'-DE'VA, who repaired to *Mócſha-ſt'hán*, was VI'RASE'NA, the ſon of GUHYACA. He had been making *Tapaſyà* for a long time, in honour of MAHA'-DE'VA, who at laſt appeared to him, and made him king over *St'hávaras*, or the immoveable part of the creation. Hence he was called ST'HA'-VARA-PATI; and the hills, trees, plants, and graſſes of every kind were ordered to obey him. His native country was near the ſea; and he began his reign with repreſſing the wicked, and inſiſting on all his ſubjects walking in the paths of juſtice and rectitude. In order to make his ſovereign acknowledged throughout the world, he put himſelf at the head of a numerous army; and directing his courſe towards the north, he arrived at *Mócſha-ſt'hán*, where he performed the *Pujà* in honour of MO'CSHE'SWARA, according to the rites preſcribed in the ſacred books. From *Móc-ſhéſa* he advanced towards the *Agni-párvatas*, or fire-mountains, in *Vahniſt'hán*; but they refuſed to meet him with preſents, and to pay tribute to him. Incenſed at their inſolence, ST'HA'VAR-PATI reſolved to deſtroy them; the officers on the part of SAMI'-RA'MA', the ſovereign of *Vahniſt'hán*, aſſembled all their troops, and met the army of ST'HA'VAR-PATI; but after a bloody conflict, they were put to flight.

SAMI'-RA'MA' amazed, enquired who this new conqueror was; and ſoon reflected that he could never have prevailed againſt her, without a boon from MAHA'-DE'VA, obtained by the means of what is called *Ugra-Tapaſyá*, or a *Tapaſyá* performed with fervor, earneſtneſs of deſire, and anger. She had a conference with ST'HA'VAR-PATI; and as he was, through his *Tapaſyá*, become a ſon of MAHA'-DE'VA, ſhe told him ſhe conſidered him in that light, and would allow him to command over all the hills, trees, and plants in *Vahni-ſt'hán*. The hills then humbled themſelves before ST'HA'VAR-PATI, and paid tribute to him.

The origin of NINUS is thus related in the ſame ſacred books. One day, as MAHA'-DE'VA was rambling over the earth naked, and with a large club in his hand, he chanced to paſs near the ſpot where ſeveral *Munis* were performing their devotions. MAHA'-DE'VA laughed at them, inſulted them in the moſt provoking and indecent terms; and leſt his expreſſions ſhould not be forcible enough, he accompanied the whole with ſignificant ſigns and geſtures. The offended *Munis* curſed him, and the *Linga* or *Phallus* fell to the ground. MAHA'-DE'VA, in this ſtate of mutilation, travelled over the world, bewailing his misfortune. His con-

ſort

ſort too, hearing of this accident, gave herſelf up to grief, and ran after him in a ſtate of diſtraction, repeating mournful ſongs. This is what the *Greek* mythologiſts called the Wanderings of DEMATER, and the Lamentations of BACCHUS.

The world being thus deprived of its vivifying principle, generation and vegetation were at a ſtand; Gods and men were alarmed; but having diſcovered the cauſe of it, they all went in ſearch of the ſacred *Linga*; and at laſt found it grown to an immenſe ſize, and endowed with life and motion.

Having worſhipped the ſacred pledge, they cut it, with hatchets, into one-and-thirty pieces, which *Polypus*-like, ſoon became perfect *Lingas*. The *Devatas* left one-and-twenty of them on earth; carried nine into Heaven, and removed one into the inferior regions, for the benefit of the inhabitants of the three worlds. One of theſe *Lingas* was erected on the banks of the *Cumud-vati*, or *Euphrates*, under the name of BA'LE'SWARA-LINGA, or the *Linga* of ISWARA *the Infant*, who ſeems to anſwer to the JUPITER PUER of the weſtern mythologiſts. To ſatisfy DE'VI, and reſtore all things to their former ſituation, MAHA'-DE'VA' was born again in the character of BALE'SWA'RA, or ISWARA *the Infant*. BALE'-SWA'RA, who foſters and preſerves all, though a child, was of uncommon ſtrength; he had a beautiful countenance; his manners were moſt engaging; and his only wiſh was to pleaſe every body; in which he ſucceeded effectually; but his ſubjects waited with impatience till he came to the age of maturity, that he might bleſs them with an heir to his virtues. BALE'SWA'RA, to pleaſe them, threw off his childlike appearance, and ſuddenly became a man, under the title of LI'LE'SWARA, or ISWARA, who gives pleaſure and delight. He then began to reign over Gods and men, with the ſtricteſt adherence to juſtice and equity: his ſubjects were happy, and the women beheld with extacy his noble and manly appearance. With the view of doing good to mankind, he put himſelf at the head of a powerful army, and conquered many diſtant countries, deſtroying the wicked, and all oppreſſors. He had the happineſs of his ſubjects and of mankind in general ſo much at heart, that he entirely neglected every other purſuit. His indifference for the female ſex alarmed his ſubjects: he endeavoured to pleaſe them; but his embraces were fruitleſs. This is termed *Aſc'halana* in *Sanſcrit*; and the place where this happened was in conſequence denominated *Aſc'halanſt'hán*. The *Apſaras*, or celeſtial nymphs, tried in vain the effect of their charms. At laſt SAMI-RA'MA' came to *Aſc'halanſt'hán*, and retiring into a ſolitary place in its vicinity, chanted her own metamorphoſes and thoſe of LI'LE'SWARA, who happening to paſs by,

was

was ſo delighted with the ſweetneſs of her voice, that he went to her and enquired who ſhe was. She related to him how they went together into *Utcoladéſa* in the characters of the CAPO'TESWARA and CAPOTE'SI: adding, you appeared then as MOCSHE'SWA'RA, and I became ANAY'ASA; you are now *Liléſwara*, and I am *Sàmì-Ràmà*, but I ſhall be ſoon *Liléſwarì*. LI'LE'SWARA, being under the influence of MA'YA, or worldly illuſion, did not recollect any of theſe tranſactions; but ſuſpecting that the perſon he was ſpeaking to might be a manifeſtation of PA'RVATI, he thought it adviſable to marry her; and having obtained her conſent, he ſeized her hand, and led her to the performance of the nuptial ceremony, to the univerſal ſatisfaction of his ſubjects. Gods and men met to ſolemnize this happy union; and the celeſtial nymphs and heavenly quiriſters graced it with their preſence. Thus SAMI-RA'MA' and LI'LE'SWARA commenced their reign, to the general ſatisfaction of mankind, who were happy under their virtuous adminiſtration.

From that period the three worlds began to know and worſhip LI'LE'SWARA, who after he had conquered the univerſe, returned into *Cuſha-duípa*. LI'LE'SWARA having married SAMI-RA'MA', lived conſtantly with her, and followed her wherever ſhe choſe to go: in whatever purſuits and paſtimes ſhe delighted, in theſe alone he took pleaſure; thus they travelled over hills and through foreſts to diſtant countries; but at laſt returned to *Cuſha-duíp*: and SAMI-RA MA' ſeeing a delightful grove near the *Hradancità* (or deep water) with a ſmall river of the ſame name, expreſſed a wiſh that he would fix the place of their reſidence in this beautiful ſpot, there to ſpend their days in pleaſure.

This place became famous afterwards, under the name of *Lila-ſt'hán*, or the place of delight. The water of the *Hradancità* is very limpid and abounds with *Camala*-flowers, or *red Lotos*.

SAMI-RA'MA' is obviouſly the SEMIRAMIS of the weſtern mythologiſts, whoſe appellation is derived from the *Sanſcrit* SAMI-RA'ME'SI', or ISI' *(Iſis)* dallying in the *Sami*, or Fir-tree. The title of SAMI'-RAME'SI is not to be found in the *Puránás*; but it is more grammatical than the other; and it is abſolutely neceſſary to ſuppoſe the word ISI' or ESI in compoſition, in order to make it intelligible.

DIODORUS SICULUS * informs us that ſhe was born at *Aſcalon*: the *Puránás*,

* DIODORUS SICULUS, lib. 3. cap. 2.

that

that her firſt appearance in *Syria* was at *Aſc'halana-ſt'hán*, or the place where LI'LE'SIA or NINUS had *Aſc'halana*.

The defeat of SEMIRAMIS by STAUROBATES, is recorded in the *Puránás* with ſtill more extravagant circumſtances; for STAUROBATES is obviouſly ST'HA'VARA-PATI, or ST'HA'WARA-PATI, as it is more generally pronounced.

The places of worſhip mentioned in the above legends are *Mócſhéſa* or *Mócſha-ſt'hán*, *Aſc'hala-ſt'hán* or *Aſc'halana-ſt'hán*, two places of the name of *Lila-ſt'hán* or *Lilésa-ſt'hán*, *Anáyáſá-dévi-ſt'hán* and *Mahá-bhágá-ſt'hán*.

The *Bráhmens* in the weſtern parts of *India*, inſiſt that *Mócſha-ſt'hán* is the preſent town of *Mecca*. The word *Mócſha* is always pronounced in the vulgar dialects, either *Moca* or *Mucta*; and the author of the *Dabiſthan* ſays, its ancient name was *Maca*. We find it called *Maco Raba*, by PTOLEMY, or MOCA *the Great* or *Illuſtrious*. GUY PATIN mentions a medal of ANTONINUS PIUS with this legend, "MOK. IEP. AXT. ATTO." which he very properly tranſlates *Moca, ſacra, inviolabilis, ſuis utens legibus*, "*Moca the holy, the inviolable, and uſing her own laws.*" This, in my humble opinion, is applicable only to *Mecca*, or *Mócſha-ſt'hán*, which the *Puránás* deſcribe as a moſt holy place. The *Arabian* authors unanimouſly confirm the truth of the above legend; and it is ridiculous to apply it to an obſcure and inſignificant place in *Arabia Petrea*, called alſo *Moca*. It may be objected, that it does not appear that *Mecca* was ever a *Roman* colony. I do not believe it ever was; but at the ſame time it was poſſible that ſome connection for commercial purpoſes might have exiſted between the rulers of *Mecca* and the *Romans* in *Egypt*. The learned are not ignorant that the *Romans* boaſted a little too much of their progreſs in *Arabia*; and even medals were ſtruck with no other view, apparently, but to impoſe on the multitude at *Rome*. It is unfortunate that we do not meet in the *Puránás* with the neceſſary *data* to aſcertain, beyond doubt, the ſituation of *Mocſhea*. From the particulars contained in them, however, it appears to have been ſituated a great way to the weſtward, with reſpect to *India*, and not from *Egypt* and *Ethiopia*, as has been ſhewn in a former diſſertation on theſe countries, and in the third volume of the *Aſiatick Reſearches*.

It is declared in the *Puránás* that CAPO'TE'SWARA and his conſort CAPO TE'SI, in the ſhape of two doves, remained there for ſome time; and *Arabian* authors inform us, that in the time of MOHAMMED, there was in the temple of *Mecca* a *pigeon* carved in wood, and another above this: to deſtroy which MOHAMMED lifted ALI upon his ſhoulders. Theſe pigeons were moſt probably placed there

in

in commemoration of the arrival of MAHA'-DE'VA and DE'VI, in the ſhape of two doves.

The worſhip of the dove ſeems to have been peculiar to *India*, *Arabia*, *Syria*, and *Aſſyria*. We read of SEMIRAMIS being fed by doves in the deſart; and of her vaniſhing at laſt from the ſight of men, in the ſhape of a dove; and according to the *Puránás*, CAPO'TE'SI, or the dove, was but a manifeſtation of SAMI-RA'MA'.

The dove ſeems to have been in former times the device of the *Aſſyrian*, as the eagle was of the *Roman* empire; for we read in ISAIAS *, "And the inhabitants "of this country ſhall ſay in that day, ſuch was our expectation! behold whither "we wanted to fly for help from the face of the dove; but how could we have "eſcaped?"

I have adhered chiefly to the tranſlation of TREMELLIUS, which appears the moſt literal, and to be more expreſſive of the idea which the prophet wiſhed to convey to the *Jews*, who wanted to fly to *Egypt* and *Ethiopia*, to avoid falling into the hands of the *Aſſyrians*; but were to be diſappointed by the fall of theſe two empires.

All commentators have unanimouſly underſtood *Aſſyria* by the *Dove*, and have tranſlated the above paſſage accordingly. CAPO'TE'SI, or the *Aſſyrian Dove*, was alſo mentioned in a ſong, current in theſe countries, and which ſeems to refer to ſome misfortune that had befallen the *Aſſyrians*. The 56th Pſalm is directed to be ſung to the tune of that ſong, which was known to every body; and for this purpoſe the firſt verſe, as uſual, is inſerted. "*The dove of diſtant countries is now* "*ſtruck dumb.*"

The *Hindus* further inſiſt, that the *black ſtone* in the wall of the *Caaba*, is no other than the *Linga* or *Phallus* of MAHA'-DEVA'; and that when the *Caaba* was rebuilt by MOHAMMED *(as they affirm it to have been)*, it was placed in the wall, out of contempt; but the new converted pilgrims would not give up the worſhip of the *black ſtone*; and ſiniſtrous portents forced the miniſters of the new religion to connive at it. *Arabian* authors alſo inform us that *ſtones* were worſhipped all over *Arabia*, particularly at *Mecca*; and AL-SHAHRESTANI † ſays, that the temple at *Mecca* was dedicated to ZOHAL or KYEVUN, who is the ſame with SATURN. The author of the *Dabiſtan* declares poſitively that the *Hejar al aſwad*,

* ISAIAS, cap. xx. in fine.

† SALE's *Koran*.

or

or the *black ſtone*, was the image of KYEVUN. Though theſe accounts ſomewhat differ from thoſe in the *Puránás*, yet they ſhew that this *black ſtone* was the object of an idolatrous worſhip from the moſt remote times.

The *Muſſulmans*, in order to palliate their idolatry towards it, have contrived other legends. KYEVUN is the CHYUN of Scripture, alſo called REMPHAN, which is interpreted the *God of Time*. If ſo, CHYUN, or KYEVUN, muſt be MAHA'-DE'VA, called alſo MAHA'-CA'LA, a denomination of the ſame import with REMPHAN; the *Egyptians* called HORUS, the lord of time; and HORUS is the ſame with HARA, or MAHA'-DE'VA *.

The reaſon of this tradition is, that the *Sabians*, who worſhipped the ſeven planets, ſeem to have conſidered SATURN as the lord of time, on account of the length of its periodical revolution; and it appears from the *Dabiſthan*, that ſome ancient tribes in *Perſia* had contrived a cycle of years, conſiſting of the revolution of SATURN repeatedly multiplied by itſelf.

ASC'HALA-ST'HA'N, or *Aſc'halana-ſt'hán*, is obviouſly *Aſcalon*; there SEMIRAMIS was born, according to DIODORUS SICULUS, or, according to the *Puránás*, there ſhe made her firſt appearance.

MAHA'-BHA'GA'-ST'HA'N, is the *ſt'hán* or place of SAMI'-RA'MA', in the characters of MAHA'-BHA'GA', or the great and proſperous goddeſs. This implies alſo that ſhe beſtowed greatneſs and proſperity to her votaries.

We cannot but ſuppoſe that the *ſt'han* of MAHA'-BHA'GA' is the ancient town of *Mabog* called now *Menbigz* and *Menbig*; the *Greeks* called it *Hierapolis*, or the holy city: it was a place of great antiquity; and there was a famous temple dedicated to the *Syrian* goddeſs, whoſe ſtatue of gold was placed in the center, between thoſe of JUPITER and JUNO. It had a golden dove on its head; hence ſome ſuppoſed it was deſigned for SEMIRAMIS, and it was twice every year carried to the ſea ſide in proceſſion. This ſtatue was obviouſly that of the great goddeſs, or MAHA'BHA'GA'-DEVI', whoſe hiſtory is intimately connected with that of the *Dove* in the weſtern mythologiſts, as well as in the *Puránás*.

An ancient author † thus relates her origin: "dicitur et *Euphratis* fluvio ovum "piſcis *Columba* adſediſſe dies plurimos, et excluſiſſe *Deam benignam* et miſericor-"dem hominibus ad *bonam vitam*." "It is related that a *Dove* hatched the egg

* See Diſſertation on *Egypt*, &c. in the third volume of the *Aſiatick Reſearches*.

† LUCIUS AMPELIUS ad MACRIN.

" of a fiſh, near the *Euphrates*, and that after many days of incubation came forth " the *Goddeſs*, *merciful* and *propitious* to men, on whom ſhe beſtows eternal bliſs." Others ſay that fiſhes rolled an egg upon dry land, where it was hatched by a *Dove*, after which appeared the *Syrian* Goddeſs.

Her origin is thus related in the *Puránás:* the *Yavanas* having for a long time vexed the inhabitants of *Cuſha-duíp*, they at laſt applied for protection to MA'HA'-BHA'GA'-DE'VI, who had already appeared in that country in the characters of SAMI-RA'MA' and CAPOTE'SI', or ISI', in the ſhape of a *Dove*; they requeſted alſo that ſhe would vouchſafe to reſide amongſt them. The merciful Goddeſs granted their requeſt; and the place where ſhe made her abode was called the *ſt'-hán*, or place of *Máhá-bhágá*.

The *Syrian* name of *Mabog* is obviouſly derived from MAHA'-BHA'GA'. This contraction is not uncommon in the weſtern dialects, derived from the *Sanſcrit*; and HESYCHIUS informs us that the Greeks pronounced the *Hindu* word *Mahá* great, *Mai*. *Mabog* is mentioned by PLINY, were we read *Magog*; but Mr. DANVILLE ſhews that it ſhould be *Mabog:* I conclude from ſome manuſcript copies. This is alſo confirmed by its preſent name, which is to this day *Manbig* or *Manbeg*. We find it alſo called *Bambukeh* (Βαμβυχη) *Bambyce*); and in NIEBUHR's Travels it is called *Bombädſche:* I ſuppoſe for *Bombäkſche* or *Mombigz:* but this is equally corrupted from *Ma'ábhágá*. In the ſame manner we ſay *Bombay* for *Momba*; and what is called in *India Bambu* or *Pambu*, is called *Mambu* in *Thibet*.

The temple of *Mabog* was frequented by all nations; and amongſt them were pilgrims from *India*, according to LUCIAN, as cited by the author of the Ancient Univerſal Hiſtory.

MABOG, or *Hierapolis*, was called alſo *Old Ninus*, or *Niniveh*, according to AMMIANUS MARCELLINUS, and PHILOSTRATUS: and there is no miſtake in DIODORUS SICULUS and CTESIAS, when they aſſert that there was a town called *Niniveh* near the *Euphrates*. Scripture alſo ſeems to place *Niniveh* thereabout; for it is ſaid that *Rezen*, was between *Niniveh* and *Calach*. And the ſituation of *Rezen*, called alſo *Reſaina*, by ancient authors, and *Razain* by the moderns, is well known, as well as that of *Calach* on the banks of the *Lycus*, now the *Zab*, to the eaſtward of the *Tigris*. *Niniveh*, of courſe, muſt have been to the weſtward of theſe two places, and falls where the *Old Ninus* is pointed out by AMMIANUS, PHILOSTRATUS, &c.

Two places of that name are mentioned in the *Puránás*, under the name of *Lílaſt'hán*,

Lílaſt'hán, the *ſt'hán* or place of LI'LE'SA or NINUS. There can be no doubt, in my humble opinion, of their identity; for SAMI'-RA'MA' is obviouſly SEMIRAMIS. NINUS was the ſon of BELUS, and, according to the *Puránás* LI'LE'SA ſprung from BA'LE'SWARA, or BALESA; for both denominations, being perfectly ſynonimous, are indifferently uſed in the *Puránás*.

NINIVEH on the *Tigris*, ſeems to be the *ſt'hán* of LI'LE'SA, where he laid aſide the ſhape and countenance of BA'LE'SA, and aſſumed that of LI'LE'SA. The other place of LILESA, which SAMI'-RA'MA', delighted with the beauty of the ſpot, choſe for the place of her reſidence, is *Hierapolis*, called alſo *Ninus* or *Nineveh*: hence we find her ſtatue in the temple of MAHA'-BHA'GA'. It is ſaid to have been ſituated near a deep pool, or ſmall lake, called from that circumſtance *Hradancità*; and the pool near the temple of *Hierapolis* was deſcribed to be two hundred fathoms deep. SAMI'-RA'MA is repreſented in a moſt amiable light in the *Puránás*, as well as her conſort LILE'SWARA, or LILE'SA.

STEPHANUS of *Byzantium* ſays that NINUS lived at a place called *Telané*, previous to his building *Niniveh*; but this place, I believe, is not mentioned by any other author.

NINUS is with good reaſon ſuppoſed to be the ASSUR of Scripture, who built *Niniveh*; and ASSUR is obviouſly the IS'WARA of the *Puránás*, with the title of LI'LE'SWARA, LI'LESA, or NINUS. The word I'SWARA, though generally applied to deities, is alſo given in the *Puránás* to Kings; it ſignifies *Lord* and *Sovereign*.

With reſpect to the monſtrous origin of BE'LE'SA, and the thirty-one *Phalli*; my *Pandit*, who is an aſtronomer, ſuſpects it to be an attempt to reconcile the courſe of the moon to that of the ſun, by dividing the ſynodical revolution into thirty-one parts, which may repreſent alſo three hundred and ten years. As this correction is now diſuſed, he could give me no further information concerning it. To the event related is aſcribed the origin of the *Linga* or *Phallus*, and of its worſhip: it is ſaid to have happened on the banks of the *Cumud-vati*, or *Euphrates*; and the firſt *Phallus*, under the name of *Baleſwara-Linga*, was erected on its banks. This is confirmed by DIODORUS SICULUS, who ſays that SEMIRAMIS brought an *Obeliſk* from the mountains of *Armenia*, and erected it in the moſt conſpicuous part of *Babylon*: it was 150 feet high, and is reckoned, by ſome author, as one of the ſeven wonders of the world *. The *Jews* in their *Talmud* allude to ſomething of

* DIOD. SIC. lib. 3. cap. 4.

this

this kind; ſpeaking of the different ſorts of earths, of which the body of ADAM was formed, they ſay that the earth which compoſed his generative parts, was brought from *Babylonia*.

The next place of worſhip is the *ſt'han* of ANA'YA'SA-DE'VA': this is obviouſly the Ἱερον τῆς Αναιας (*Heiron tes Anaias*) of Strabo, or the temple of the goddeſs ANAIA, or ANAIAS, with its burning ſpring of NAPHTHA. They are upon a hillock, called *Corcura* by the antients, and now known by the name of *Corcoor:* it is near *Kerkook*, and to the eaſtward of the *Tigris*. To this day it is viſited by pilgrims from *India*; and I have been fortunate enough to meet with four or five who had paid their devotions in this holy place. I conſulted them ſeparately, and their accounts were as ſatisfactory as could be expected. They call it *Judlá-muc'hí*, or the flaming mouth.

This conflagration is minutely deſcribed by DIODORUS SICULUS*, who ſays, that in former times a monſter called ALCIDA, who vomited flames, appeared in *Phrygia*; hence ſpreading along mount *Taurus*, the conflagration burnt down all the woods, as far as *India:* then with a retrograde courſe, ſwept the foreſts of mount *Liban*, and extended as far as *Egypt* and *Africa:* at laſt a ſtop was put to it by MINERVA.

The *Phrygians* remembered well this conflagration and the flood which followed it; but as they could not conceive that it could originate from a benevolent Goddeſs, they transformed her into a monſter, called ALCIDA. *Alcida* however is an old *Greek* word, implying ſtrength and power, and is therefore ſynonimous with *Sácá* or *Sácti-devi*, the principal form of SA'MI'-RA'MA', and other manifeſtations of the female power of nature.

Indeed the names and titles of moſt of the *Babylonian* deities are pure *Sanſcrit:* and many of them are worſhipped to this day in *India*, or at leaſt their legends are to be found in the *Puránás*.

Thus SEMIRAMIS is derived from *Sami-Rámeſi*, or *Sámi-Ramá*, and *Sami-Rámádévi*.

MILITTA from *Militia-Devi*, becauſe ſhe brings people together *(Connuba)*.

SHACKA, or *Saca*, is from the *Sanſcrit Sácta-dévi*, pronounced *Sácá* in the vulgar dialects: it implies ſtrength and power.

SLAMBA, or *Salambo*, is from *Sarwámbá*, often pronounced *Salwámbá:* it

* DIOD. SIC. lib. 4. cap. 5.

ſignifies

ſignifies the mother of all: and ſhe is the *Magna Mater* of the weſtern mythologiſts.

DE'VI is called alſo *A'ntargati*, or *Antargatá*, becauſe ſhe reſides within the body, or in the heart, and thereby gives ſtrength and courage. This is the Goddeſs of Victory in *India*, and they have no other: it is declared in the *Puránás*, that ſhe was called A'NTRAST'HI (a title of the ſame import with the former) in the foreſts of *Viſhála-van*, on the banks of the river *Tamaſa*, in *Chándra-duíp*: from *A'ntraſt'hi* the old *Britons*, or rather the *Romans*, made *Andraſte*.

The *Babylonian* Goddeſs was called alſo the *Queen of Heaven*; and to this day a form of DEVI, with the title of *Sverga rádni-dévi*, or DEVI, *Queen of Heaven*, is worſhipped in *India*.

RHEA is from *Hriyá-devi*, or the baſhful or modeſt Goddeſs.

RAKH is from *Rácéſwara*: a name of LUNUS, from one of his favourite wives called *Raca*: it ſignifies alſo the full orb of the Moon.

NABO, or NEBO, is I'SWARA, with the title of *Nava*, or *Naba*, the celeſtial.

NARGAL is from *Anargaléſwara*; that is, he who is independent.

ADRAM-MELECH is from *A'dharm-eſwara*; for I'SWARA and MELECH, in the *Chaldæan* language, are ſynonimous.

ADHARME'SWARA is thus called, becauſe he puniſhes thoſe who deviate from the paths of juſtice and rectitude.

ANAM-MELECH is from *Anam-éſwara* or IS'WARA, who, though above all, behaves to all with meekneſs and affability.

NIMROD is from *Níma-Rudra*, becauſe RUDRA or MAHA'-DE'VA gave him half of his own ſtrength.

VAHNI-ST'HA'N, called alſo *Agni-ſt'hán*, is ſaid in ſome *Puránás* to be in *Cuſha-duíp*; and in others, to be on the borders of it. It includes all the mountainous country from *Phrygia* to *Herat*. *Vahni-ſt'hán* and *Agni-ſt'hán* are denominations of the ſame import, and ſignify the country or ſeat of fire, from the numerous volcanoes and burning ſprings which are to be found all along this extenſive range of mountains. The preſent *Azar-Báiján* is part of it, and may be called *Vahni-ſthán* proper. *Azar*, in the old *Perſian*, ſignifies fire; and *Báiján*, a mine or ſpring. This information was given to me by Mr. DUNCAN, reſident of *Benares*, who was ſo kind as to conſult on this ſubject with MEHDI-ALI-KHA'N, one of the *Aumils* of the *Zemindary* of *Benares*. He is a native of *Khoraſſan*, and well acquainted with the antiquities of his own country, and of *Iran* in general. According to him,

the

the principal *Báiján*, or ſpring of fire, is a place called *Baut-Cubeh* *, in *Azar-Báiján*. *Vahni-ſt'hán* is called alſo *Vahni-vyápata*, from the immenſe quantity of fire collected in that country. There are many places of worſhip remaining throughout *Iran*, ſtill reſorted to by devout pilgrims. The principal are *Balk* and the *Pyræum*, near *Herat*. *Hingláz*, or *Anclooje*, near the ſea, and about eighty miles from the mouth of the *Indus*: it is now deſerted; but there remain twenty-four temples of BHAVA'NI. This place, however, is ſeldom viſited, on account of the difficulties attending the journey to it.

GANGA'WA'Z, near *Congo*, on the *Perſian* Gulph, another place of pilgrimage, where are many caves, with ſprings in the mountains.

The *ſt'hán* of CALYA'NA-RA'YÀ and GOVINDA-RA'YA, two incarnations of VISHNU, is in the center of *Buſſora*, on the banks of the *Euphrates*; and there are two ſtatues carefully concealed from the ſight of the *Muſſulmans*.

ANA'YA'SA'-DE'VI-ST'HA'N has been already mentioned; and the great *Jválá-muc'hi* is the deſignation of the ſprings of *Naphtha*, near *Baku*.

There is alſo another *Hindu* place of worſhip at *Baharein (El Katif)* and another at *Aſtrachan*, where the few *Hindus* who live there worſhip the *Volga*, under the name of SU'RYA-MUC'HI'-GANGA; the legends relating to this famous river are to be found in the *Puránás*, and confirm the information of the pilgrims who have viſited theſe holy places. There are ſtill many *Hindus* diſperſed through that immenſe country; they are unknown to the *Muſſulmans*; and they paſs for *Guebris*, as they call them here, or *Parſis*. There is now at *Benares* a *Bráhman* of the name of DE'VI-DA's, who is a native of *Meſched*; he was introduced lately to my acquaintance by Mr. DUNCAN; and he informed me that it was ſuppoſed there were about 2000 families of *Hindus* in *Khoraſſan*; that they called themſelves *Hindi*, and are known to the *Muſſulmans* of the country under that appellation.

This, in my opinion, accounts for the whole country to the ſouth of the *Caſpian* ſea, from *Khoraſſan* and *Arrokhage*, as far as the *Black Sea*, being called *India* by the antients; and its inhabitants in various places *Sindi*: it is implicitly confirmed by the *Puránás*, in which it is ſaid that the *Súrya-muc'hi-Gángá*, or *Volga*, falls into the *Sea* of *Sind*. The *Hindus* near *Baku* and at *Aſtrachan*, call it the *new ſea*, becauſe they ſay it did not exiſt formerly. They have legends about it, which, however, my learned friend VIDHYA'-NA'TH could not find in the *Puránás*.

According to the pilgrims I have conſulted, there are about twenty or thirty

* It is vulgarly called *Baku*.

families

families of *Hindus* at *Balk*; and EUSEBIUS informs us, that there were *Hindus* in *Bactriana* in his time. There are as many families at *Gángáwáz*, or *Congo*; about one hundred at *Buſſora*; and a few at *Baharein*: theſe informed PURA'NA'-PURI', a *Yógí* and famous traveller, called alſo URD'HWABA'HU, becauſe he always keeps his hands elevated above his head, that formerly they correſponded and traded with other *Hindus* on the banks of the river *Nila*, in the country of *Miſr*; and that they had once a houſe or factory at *Cairo*; but that, on account of the oppreſſion of the *Turks* and the roving *Arabs*, there had been no intercourſe between them for ſeveral generations. There are no *Hindus* at *Anáyáſádévì*, or *Corcoor*; but they compute a large number in the vicinity of *Baku*, and *Derbend*. The *Shroffs* at *Sámákhi* are *Banyans* or *Hindus*, according to the Dictionary of Commerce, and of *Trevoux*, as cited in the *French* Encyclopædia*.

The *Cubánís* who live near *Derbend*, are *Hindus*, as my friend PURANA-PURI was told at *Baku* and *Aſtrachan*, in his way to *Moſcow*; and their *Bráhmens* are ſaid to be very learned; but, as he very properly obſerved, this ought to be underſtood relatively on a compariſon with the other *Hindus* in *Perſia*, who are extremely ignorant.

His relation is in a great meaſure confirmed by STRAHLENBERG, who calls them *Cuba* and *Cubatzin*; and ſays that they live near *Derbend*, and are a diſtinct people, ſuppoſed to be *Jews*, and to ſpeak ſtill the *Hebrew* language.

The *Sanſcrit* characters might eaſily be miſtaken for the black *Hebrew* letters by ſuperficial obſervers, or perſons little converſant in ſubjects of this nature.

The *Aranì*, figuratively called the daughter of the SAMI-tree, and the mother of fire, is a cubic piece of wood about five inches in diameter, with a ſmall hole in the upper part. A ſtick of the ſame ſort of wood is placed in this cavity, and put in motion by a ſtring held by two men, or fixed to a bow. The friction ſoon produces fire, which is uſed for all religious purpoſes, and alſo for dreſſing food. Every *Brahmen* ought to have an *Aranì*; and when they cannot procure one from the SAMI'-tree, which is rather ſcarce in this part of *India*, they make it with the wood of the *Aſvatt'ha*, or *Pippala*-tree. This is alſo a ſacred tree, and they diſtinguiſh two ſpecies of it; the *Pippala*, called in the vulgar dialects *Pipal*, and the *Chalat-palaſha*. The leaves of this laſt are larger, but the fruit is ſmaller, and not ſo numerous as in the former ſpecies. It is called *Chalat-palaſha*, from the tremulous

* Ad vocem *Cheraffs*.

motion

motion of its leaves. It is very common in the hills, and the vulgar name for it is *Pópala*; from which I ſuppoſe is derived the *Latin* word *Populus*; for it is certainly the trembling *Poplar* or *Aſpen*-tree.

The feſtival of SEMIRAMIS falls always on the tenth day of the lunar month of *Aſwina*, which this year coincided with the fourth of *October*. On this day lamps are lighted in the evening under the *Sami*-tree; offerings are made of rice and flowers, and ſometimes ſtrong liquors; the votaries ſing the praiſe of SAMI'-RAMA'-DEVI' and the *Sami*-tree; and having worſhipped them, carry away ſome of the leaves of the tree, and earth from the roots, which they keep carefully in their houſes till the return of the feſtival of SEMIRAMIS in the enſuing year.

ON THE ANDAMAN ISLANDS.

By Lieut. R. H. COLEBROOKE.

THE *Andaman* iſlands are ſituated on the eaſtern ſide of the bay of *Bengal**, extending from north latitude 10° 32′ to 13° 40′. Their longitude is from 92° 6′ to 92° 59′ eaſt of *Greenwich*. The *Great Andaman*, or that portion of the land hitherto ſo called, is about one hundred and forty *Britiſh* miles in length, but not more than twenty in the broadeſt parts. Its coaſts are indented by ſeveral deep bays, affording excellent harbours, and it is interſected by many vaſt inlets and creeks, one of which has been found to run quite through, and is navigable for ſmall veſſels. The *Little Andaman* is the moſt ſoutherly of the two, and lies within thirty leagues of the iſland *Carnicobar*. Its length is 28 miles by 17 in breadth, being more compact, but does

* It is perhaps a wonder, that iſlands ſo extenſive, and lying in the track of ſo many ſhips, ſhould have been, till of late years, ſo little known; that while the countries by which they are almoſt encircled, have been increaſing in population and wealth, having been from time immemorial in a ſtate of a tolerable civilization, theſe iſlands ſhould have remained in a ſtate of nature, and their inhabitants plunged in the groſſeſt ignorance and barbarity.

The wild appearance of the country, and the untractable and ferocious diſpoſition of the natives, have been the cauſes, probably, which have deterred navigators from frequenting them; and they have juſtly dreaded a ſhipwreck at the *Andamans* more than the danger of foundering in the ocean; for although it is highly probable, that in the courſe of time many veſſels have been wrecked upon their coaſts, an inſtance does not occur of any of the crews being ſaved, or of a ſingle perſon returning to give any account of ſuch a diſaſter.

not

not afford any harbour, although tolerable anchorage is found near its ſhores. The former is ſurrounded by a great number of ſmaller iſlands.

The ſhores of the main iſland, and indeed of all the reſt, are in ſome parts rocky, and in a few places are lined with a ſmooth and ſandy beach, where boats may eaſily land. The interior ſhores of the bays and creeks are almoſt invariably lined with mangroves, prickly fern, and a ſpecies of wild rattan; while the inland parts are covered with a variety of tall trees, darkened by the intermixture of creepers, paraſite plants, and underwood; which form altogether a vaſt and almoſt impervious foreſt, ſpreading over the whole country. The ſmaller iſlands are equally covered with wood; they moſtly contain hills of a moderate height, but the main iſland is diſtinguiſhed by a mountain of prodigious bulk, called from its ſhape the Saddle-Peak; it is viſible in clear weather at the diſtance of twenty-five leagues, being nearly two thouſand four hundred feet in perpendicular height. There are no rivers of any ſize upon theſe iſlands, but a number of ſmall rills pour down from the mountains affording good water, and exhibiting in their deſcent over the rocks a variety of little caſcades, which are overſhaded by the ſuperincumbent woods.

The ſoil is various in different parts of theſe iſlands *; conſiſting of black rich mould, white and dark coloured clays, light ſandy ſoil, clay mixed with pebbles of different colours, red and yellow earth; but the black mould is moſt common. Some white cliffs are met with along the ſhores, which appear to have been originally clay, with a mixture of ſand, hardened by time into the conſiſtence of ſtone, but might be cut, and would probably anſwer for building. Near the ſouthern extremity of the great iſland, where it is mountainous and rocky, ſome indications of minerals have appeared, particularly of tin. There is alſo a kind of freeſtone, containing a yellow ſhining ſpar, reſembling gold duſt. Some of the hills bordering the coaſts exhibit blue ſhiſtous ſtrata at their baſes, with the Breſcia or pudding-ſtone; and ſome ſpecimens of red ochre have been found, not unlike cinnabar.

The extenſive foreſts with which theſe iſlands are over-run, produce a variety of trees fit for building, and many other purpoſes. The moſt common are the poon, dammer, and oil-trees; red wood, ebony, cotton-tree, and *buddaum* or almond-tree; ſoondry, chingry, and bindy; *Alexandrian* laurel, poplar, and a tree

* I am indebted to Major KYD and Captain ARCHIBALD BLAIR for many of the ſubſequent remarks. The latter was employed by government in ſurveying theſe iſlands, and has the credit of having furniſhed the firſt complete and correct Chart of the *Andamans*.

reſembling the ſattin-wood; bamboos, and plaas, with which the natives make their bows; cutch, affording the extract called *Terra Japonica*; the *Melori*, or *Nicobar* bread-fruit; aloes, ground rattans, and a variety of ſhrubs. A few fruit-trees have been found in a wild ſtate; but it is remarkable that cocoa nuts, ſo common in other tropical countries, are here almoſt unknown. Many of the trees afford timbers and planks fit for the conſtruction of ſhips, and others might anſwer for maſts. A tree grows here to an enormous ſize, one having been found to meaſure thirty feet in circumference, producing a very rich dye, that might be of uſe in manufactures.

The only quadrupeds yet diſcovered in theſe iſlands are wild hogs, monkeys, and rats. Guanas, and various reptiles abound; among the latter is the green ſnake, very venomous; centipedes of ten inches long, and ſcorpions.

A variety of birds are ſeen in the woods; the moſt common are pigeons, crows, parroquets, king fiſhers, curlews, fiſh-hawks, and owls. A ſpecies of humming bird, whoſe notes are not unlike the cuckoo, is frequently heard in the night.

The principal caverns and receſſes, compoſing part of the coaſt, give ſhelter to the birds that build the edible neſts: an article of commerce in the *China* market, where they are ſold at a very high price. It has been thought that theſe nets are formed from a glutinous matter exuding from the ſides of the caverns where theſe birds, during their nidification, reſort. It is not known whether they emigrate; but the period of their incubation takes place in *December*, and continues till *May*. Not more than two white ſpotleſs eggs have been found in their nets; but they have been further ſuppoſed to breed monthly.

The harbours and inlets from the ſea are plentifully ſtocked with a variety of fiſh; ſuch as mullets, ſoles, pomfret, rock-fiſh, ſkate, gurnards, ſardinas, roe-balls, ſable, ſhad, alooſe, cockup, grobers, ſeer-fiſh, old wives, yellow tails, ſnappers, devil-fiſh, cat-fiſh, prawns, ſhrimps, cray-fiſh, and many others: a ſpecies reſembling the whale, and ſharks of an enormous ſize, are met with. A variety of ſhell fiſh are found on the reefs, and in ſome places oyſters of an excellent quality. Of the many madrapores, coralines, zoophites, and ſhells, none have yet been diſcovered but ſuch as are found elſewhere.

The *Andaman* iſlands are inhabited by a race of men the leaſt civilized, perhaps, in the world; being nearer to a ſtate of nature than any people we read of. Their colour is of the darkeſt hue, their ſtature in general ſmall, and their aſpect uncouth. Their limbs are ill formed and ſlender, their bellies prominent, and, like

the

the *Africans*, they have woolly heads *, thick lips, and flat noſes. They go quite naked, the women wearing only at times a kind of taſſel, or fringe, round the middle; which is intended merely for ornament, as they do not betray any ſigns of baſhfulneſs when ſeen without it. The men are cunning, crafty, and revengeful; and frequently expreſs their averſion to ſtrangers, in a loud and threatening tone of voice, exhibiting various ſigns of defiance, and expreſſing their contempt by the moſt indecent geſtures. At other times they appear quiet and docile, with the moſt inſidious intent. They will affect to enter into a friendly conference, when after receiving with a ſhow of humility whatever articles may be preſented to them, they ſet up a ſhout, and diſcharge their arrows at the donors. On the appearance of a veſſel or boat, they frequently lie in ambuſh among the trees, and ſend one of their gang, who is generally the oldeſt among them, to the water's edge, to endeavour by friendly ſigns to allure the ſtrangers on ſhore. Should the crew venture to land without arms, they inſtantly ruſh out from their lurking places, and attack them. In theſe ſkirmiſhes they diſplay much reſolution, and will ſometimes plunge into the water to ſeize the boat; and they have

* In this reſpect they differ from all the various tribes inhabiting the continent of *Aſia*, or its iſlands. A ſtory is ſomewhere told of a ſhip full of *African* ſlaves, of both ſexes, having been caſt away at the *Andamans*; and that having put to death their maſters and the ſhip's crew, they ſpread themſelves over, and peopled the country. This ſtory does not appear to have been well authenticated, nor have I ever met with the particular author who relates it. They have been aſſerted by ſome to be cannibals, and by others (*vide* Captain HAMILTON's Voyage, and all the Geographical Dictionaries) to be a harmleſs and inoffenſive people, living chiefly on rice and vegetables. That they are cannibals has never been fully proved, although from their cruel and ſanguinary diſpoſition, great voracity, and cunning modes of lying in ambuſh, there is reaſon to ſuſpect, that in attacking ſtrangers they are frequently impelled by hunger, as they invariably put to death the unfortunate victims who fall under their hands. No poſitive inſtance, however, has been known of their eating the fleſh of their enemies; although the bodies of ſome whom they have killed, have been found mangled and torn. It would be difficult to account for their unremitting hoſtility to ſtrangers, without aſcribing this as the cauſe, unleſs the ſtory of their origin, as above mentioned, ſhould be true; in which caſe they might probably retain a tradition of having once been in a ſtate of ſlavery. This in ſome degree would account for the rancour and enmity they ſhew; and they would naturally wage perpetual war with thoſe whom they might ſuſpect were come to invade their country, or enſlave them again.

It would appear that theſe iſlands were known to the ancients (ſee Major RENNEL's Memoirs, introduction, page xxxix). They are mentioned, I believe, by MARCO POLO; and in the ancient accounts of *India* and *China*, by two *Mahomedan* travellers, who went to thoſe parts in the ninth century (tranſlated from the *Arabic* by EUSEBIUS RENAUDOT), may be ſeen the following curious account. "Beyond theſe two iſlands (*Nejabalus*, probably *Nicobars*) lies "the ſea of *Andaman*; the people on this coaſt eat human fleſh quite raw; their complexion is black, their hair "frizzled, their countenance and eyes frightful, their feet are very large and almoſt a cubit in length, and they go "quite naked. They have no embarkations; if they had, they would devour all the paſſengers they could lay hands "on, &c."

been

been known even to diſcharge their arrows while in the act of ſwimming. Their mode of life is degrading to human nature, and, like brutes, their whole time is ſpent in ſearch of food. They have yet made no attempts to cultivate their lands, but live entirely upon what they can pick up, or kill. In the morning they rub their ſkins with mud, or wallow in it like buffaloes, to prevent the annoyance of inſects, and daub their woolly heads with red ochre, or cinnabar. Thus attired, they walk forth to their different occupations. The women bear the greateſt part of the drudgery in collecting food, repairing to the reefs at the receſs of the tide, to pick up ſhell-fiſh, while the men are hunting in the woods, or wading in the water to ſhoot fiſh with their bows and arrows. They are very dextrous at this extraordinary mode of fiſhing, which they practiſe alſo at night, by the light of a torch. In their excurſions through the woods, a wild hog ſometimes rewards their toil, and affords them a more ample repaſt. They broil their meat or fiſh over a kind of grid, made of bamboos; but uſe no ſalt, or any other ſeaſoning.

The *Andamaners* diſplay at times much colloquial vivacity, and are fond of ſinging and dancing; in which amuſements the women equally participate. Their language is rather ſmooth than guttural; and their melodies are in the nature of recitative and chorus, not unpleaſing. In dancing they may be ſaid to have improved on the ſtrange republican dance aſſerted by VOLTAIRE to have been exhibited in *England: Où dancant à la ronde, chacun donne des coups de pieds à ſon "voiſin, et en recoit autant."* The *Andamaners* likewiſe dancing in a ring, each alternately kicking and ſlapping his own breech, *ad libitum.* Their ſalutation is performed by lifting up a leg, and ſmacking with their hand the lower part of the thigh.

Their dwellings are the moſt wretched hovels imaginable. An *Andaman* hut may be conſidered the rudeſt, and moſt imperfect attempt of the human race to procure ſhelter from the weather, and anſwers to the idea given by VITRUVIUS, of the buildings erected by the earlieſt inhabitants of the earth. Three or four ſticks are planted in the ground, and faſtened together at the top, in the form of a cone, over which a kind of thatch is formed with the branches and leaves of trees. An opening is left on one ſide, juſt large enough to creep into; and the ground beneath is ſtrewed with dried leaves, upon which they lie. In theſe huts are frequently found the ſculls of wild hogs, ſuſpended to the roofs.

Their canoes are hollowed out of the trunks of trees by means of fire and inſtruments

ſtruments of ſtone, having no iron in uſe amongſt them, except ſuch utenſils as they have procured from the *Europeans* and ſailors who have lately viſited theſe iſlands; or from the wrecks of veſſels formerly ſtranded on their coaſts. They uſe alſo rafts, made of bamboos, to tranſport themſelves acroſs their harbours, or from one iſland to another. Their arms have already been mentioned in part, I need only add that their bows are remarkably long, and of an uncommon form; their arrows are headed with fiſh-bones, or the tuſks of wild hogs; ſometimes merely with a ſharp bit of wood, hardened in the fire, but theſe are ſufficiently deſtructive. They uſe alſo a kind of ſhield; and one or two other weapons have been ſeen amongſt them. Of their implements for fiſhing, and other purpoſes, little can be ſaid. Hand-nets of different ſizes are uſed in catching the ſmall fry, and a kind of wicker-baſket, which they carry on their backs, ſerves to depoſit whatever articles of food they can pick up. A few ſpecimens of pottery-ware have been ſeen in theſe iſlands.

The climate of the *Andaman* iſlands is rather milder than in *Bengal*. The prevailing winds are the ſouth-weſt and north-eaſt monſoons, the former commencing in *May*, and bringing in the rains; which continue to fall with equal, if not greater, violence till *November*. At this time the north-eaſt winds begin to blow, accompanied likewiſe by ſhowers, but giving place to fair and pleaſant weather during the reſt of the year. Theſe winds vary but little, and are interrupted only at times by the land and ſea-breezes. The tides are regular, the floods ſetting in from the weſt, and riſing eight feet at the ſprings, with little variation in different parts. On the north-eaſt coaſt it is high water at the full and change of the moon at 8° 33′. The variation of the needle is 2° 30′ eaſterly.

Specimen of the Andaman Language.

Andaman iſland, or native country	Mincopie	Bamboo,	Otallie	Bird,	Lohay
Ant,	Ahooda	Bangle,	Alai	To bite,	Moepaka
Ant, white in its winged ſtate	Doughay	Baſket,	Tetegay	Boat,	Locca
Arrow,	Buttohie	Black,	Cheegheooga	Boar,	Stohee
Arm,	Pilie	Blood,	Cochengohee	Bow,	Tongie
Bat,	Vilvila	Bead,	Tahee	Bow-ſtring,	Geetahie
		To beat,	Ingo taheya	Breaſt,	Cah
		Belly,	Napoy	Bone,	Geetongay
		To bind	Totoba oto goley toha		

Charcoal,

Charcoal,	Wehée
Chin,	Pitang
Cold,	Choma
Cocoa-nut,	Bollatee
Cotton cloth,	Pangapee
To cough,	Ingotahey
Crow,	Nohay
To cut,	Hojeeha,
Door,	Tang
To drink,	Meengohee
Earth,	Totongaangee
Ear,	Quaka
To eat,	Ingelholiah
Elbow,	Mohalajabay
Eye,	Jabay
Finger,	Momay
Fire,	Mona
Fiſh,	Nabohee
Fiſh-hook	Atabea
Fleſh,	Woohee
Foot,	Gookee
Friend,	Padoo
Frog,	Etolay
Goat,	Kokee
To go,	Ooſſeema
Graſs,	Tohobee
Hair,	Ottee
Hand,	Gonie *or* Monie
Head,	Tabay
Honey,	Lorkay
Hot,	Hooloo
Houſe,	Beaday
Jack fruit,	Abay
Jackall	Omay
Iron, or any metal,	Dohie
Kiſs,	Itolie
Knee,	Ingolay
To laugh,	Onkeomai
Leaf of a tree,	Tongòlie
Leg,	Chigie
Man,	Camolan
Moon,	Tabie
Muſequeto,	Hohenangee
Mouth,	Morna
Nail,	Mobejedanga
Neck,	Tohie
Net,	Botolee
Noſe,	Mellee
Paddle, or oar,	Mecal
Pain,	Alooda
Palm,	Dolai
Paper,	Pangpoy
Pike,	Woobalay
To pinch,	Ingee Genecha
Plantain tree,	Cholellee
Pot,	Bootchoohie
To pull,	Totobati Gehooa
Rain,	Oye
Red,	Gheallop
Road,	Echollee
To run,	Gohabela
To ſcratch,	Inkahey aha
Seed,	Keetongay
Sheep,*	Neena
Smoke,	Boleenee
To ſing,	Gokobay
To ſit down,	Gongtohee
Shadow,	Tangtohee
To ſleep,	Comoha
To ſneeze,	Oh cheka
To ſpit,	Inkahoangy
To ſwim,	Quaah
To ſwallow,	Beebay
Sky,	Madamo
Star,	Chelobay
Stone,	Woolay
Sun,	Ahay
To take up,	Catoha
Thigh,	Poye
Teeth,	Mahoy
Tongue,	Talie
Thunder and lightning,	Maufay-Maccee
To waſh,	Inga doha
Waſp,	Bohomakee
To walk,	Boony-jaoa
Water,	Migway
To weep,	Oana-wannah
Wind,	Tomjamay
Wood,	Tanghee.

* It may appear ſurpriſing that they ſhould have names for animals that are not found in their Iſlands. This circumſtance may tend to confirm the ſtory of their origin.

ON BARREN ISLAND, AND ITS VOLCANO.

By Lieut. R. H. COLEBROOKE.

ABOUT fifteen leagues to the eaſtward of the *Andaman* iſlands lies an iſland which navigators, from its appearance, have juſtly called *Barren*. On the 12th of *May* 1787, Captain KYD and myſelf, being on board the *Trial* Snow, on a voyage to *Pulo Penang*, *Barren Iſland* in ſight, bearing SSW. ſeven leagues diſtant, ſaw a column of ſmoke aſcending from its ſummit, and by the help of our glaſſes plainly perceived it to ariſe from a hill nearly in its center, around which appeared an extenſive valley, or crater; but being becalmed, we could not approach nearer to examine it.

The following account of this remarkable iſland is given by Captain BLAIR, in his report of the Survey of the *Andaman* iſlands.

" I left that coaſt *March* the 21ſt, and landed on *Barren Iſland* on the 24th.— " The volcano was in a violent ſtate of eruption, burſting out immenſe volumes of " ſmoke, and frequently ſhowers of red hot ſtones. Some were of a ſize to weigh " three or four tons, and had been thrown ſome hundred yards paſt the foot of the " cone. There were two or three eruptions while we were cloſe to it; ſeveral of " the red hot ſtones rolled down the ſides of the cone, and bounded a conſiderable " way beyond us. The baſe of the cone is the loweſt part of the iſland, and very " little higher than the level of the ſea. It ariſes with an acclivity of 32° 17′ to " the height of 1800 feet nearly, which is alſo the elevation of the other parts of " the iſland.

" From its preſent figure, it may be conjectured that the volcano firſt broke out " near the centre of the iſland, or rather towards the north-weſt; and in a long " proceſs of time by diſcharging, conſuming, and undermining, has brought it to " the preſent very extraordinary form, of which a very correct drawing by Lieu- " tenant WALES, will impreſs a diſtant idea.

" Thoſe parts of the iſland that are diſtant from the volcano, are thinly covered " with withered ſhrubs and blaſted trees. It is ſituated in latitude 12° 15′ north, " and fifteen leagues eaſt of the northernmoſt iſland of the *Archipelago**, and may " be ſeen at the diſtance of twelve leagues in clear weather. A quarter of a mile " from the ſhore, there is no ground with 150 fathoms of line."

* The eaſtermoſt cluſter of the *Andaman* iſlands.

REMARK.

REMARK.

FROM the very ſingular and uncommon appearance of this iſland, it might be conjectured that it has been thrown up entirely from the ſea, by the action of ſubterranean fire. Perhaps, but a few centuries ago, it had not reared itſelf above the waves; but might have been gradually emerging from the bottom of the ocean long before it became viſible; till at length it reached the ſurface, when the air would naturally aſſiſt the operation of the fire that had been ſtruggling for ages to get vent, and it would then burſt forth. The cone or volcano would rapidly increaſe in bulk, from the continual diſcharge of lava and combuſtible matter; and the more violent eruptions which might have enſued at times, when it would throw up its contents to a greater elevation and diſtance, might have produced that circular and nearly equidiſtant ridge of land we ſee around it.

If this conjecture ſhould gain credit, we may ſuppoſe not only many iſlands, but a great portion of the habitable globe, to have been thrown up by volcanos, which are now moſtly extinguiſhed. Many hills and iſlands now clothed with verdure, bear evident marks of having once been in this ſtate. A ground plan of *Barren iſland* would ſo exactly reſemble ſome of the lunar ſpots, as ſeen through a good teleſcope when their ſhadows are ſtrong, that I cannot help thinking there are alſo many more volcanos in the moon than have yet been diſcovered by a celebrated modern aſtronomer *. Thoſe remarkable valleys, or cavities, diſcernible on her diſk, have many of them a ſingle hill in their center, and are ſurrounded by a circular ridge of a ſimilar appearance.

Query. May not the moon be ſurrounded by an atmoſphere of pure air, which differing eſſentially in its properties from the atmoſphere of our earth, might account for ſome of the phenomena of her appearance to us? An atmoſphere of this ſort might be ſo tranſparent as not to refract the rays of light in a ſenſible degree, or to produce the leaſt change in the appearance of a ſtar paſſing through it when an occultation is obſerved. At the ſame time, it would increaſe in a high degree, the inflammability and combuſtion of matter, ſo as to produce volcanos; and if we ſuppoſe the moon to have neither ſeas nor vegetation on her ſurface, the ſun's light would be more ſtrongly reflected than from the earth, where the rays are liable to abſorption by water and vegetables.

* HERSCHELL.

Extract

Extract from a Diary of a Journey over the Great Deſart, from Aleppo to Buſſora, in April 1782. *Communicated by Sir* WILLIAM DUNKIN, *and publiſhed with a view to direct the attention of future Travellers to the Ruins deſcribed in it.*

APRIL 16.

SET off at five in the morning; encamped at five in the evening; the day intenſely hot; the ſoil in general ſandy; ſome few ſhrubs and buſhes, but now quite brown, and ſo dry, that with the leaſt touch they fall to powder; many ſtalks of lavender and roſemary; and in very dry red ſand ſeveral ſcarlet tulips; other ſorts new to me, one of a ſingular kind, in colour and ſmell like a yellow lupin, but in figure like the cone of a fir tree, from ten to twelve inches long.

After about two hours in this ſort of country, the ground appeared more verdant and firm; we then came to ſome very extraordinary ruins our *Shaikh* had ſeen, but never had approached them before; we prevailed on him; he called the place *Caſtrobuoin*; another *Arab* called it *Calmay*; our *Armenians*, who interpreted for us in very bad *Italian*, called it *Caſtro duo fratilli* (I try to give the names from their mode of pronouncing); what we firſt ſaw was a ſquare, each ſide about 400 yards along. The walls forty feet high, yet entire in many places; at each angle there is a circular tower, two others in each of the ſides; they riſe much higher than the walls; the towers and the walls conſtructed with very large blocks of cut ſtone. To what uſe the hollow of the ſquare had been applied, I could form no conjecture; in it immenſe blocks of cut ſtone, and ſegments of arches of different dimenſions, tumbled together in monſtrous heaps; near to the gateway by which we entered, two arches remain perfect, a third nearly ſo; they were probably carried all along the inſide of (but diſtinct at leaſt twenty feet from) the wall. Theſe arches ſpring from very ſlender pillars, each pillar a ſingle ſhaft; the arches are nearly ſemicircular, of the ſame beautiful white ſtone as the pillars. About a quarter of a mile from this ſquare there is another, which appears to be a fourth part leſs; the entrance into this is under the loftieſt as well as the wideſt arch of ſtone I ever ſaw: I had no means of meaſuring, which I much regretted: I cannot draw, which I regretted much more. The proportions of the pillars, and of the arch which they ſupport, conveyed to me ſomething more juſt and beautiful than I can deſcribe. The inſide of the arch is richly ornamented with

ſculpture; at the ſides there are niches, I ſuppoſe, for ſtatues; the outer face of the building is compoſed of great blocks of ſtone as the greater ſquare; and in many places yet entire, appear to be as well chiſſeled and jointed as the beſt conſtructed marble building I ever ſaw, even at *Venice*. The height of the wall ſeems to be equal to that of the greater ſquare; the thickneſs, which from ſome breaches quite through may be obſerved, from ſeven to eight feet, all through of the ſame ſtone, with little, if any, cement: the number and diſpoſition of the towers the ſame as in the other; but in this, where the towers riſe above the wall, they are more ornamented; two circles or bands of ſculpture at equal diſtances appear relieved from the body of each tower; but as all the tops are broken off, I could not gueſs how they had been cloſed. The ſculpture on the inſide of the great arch of entrance, and on many of the fragments of proſtrated pillars, appear like thoſe of Mr. *Wood*'s plates of the ruins of *Palmyra*. Over the entrance-arch on the inſide, are ſome remains of an inſcription in *Arabic*; but ſo defaced, that our *Shaikh*, who reads and writes *Arabic*, could not make out one word. All along the inſide of this ſquare, arches formed of the fineſt brick are conſtructed; they project from the wall about thirty feet, and are about twenty feet high over the arches; and cloſe up to the wall is a platform of earth perfectly level, and now covered with rich and verdant herbage. No veſtige of buildings appears in the hollow of this ſquare, but many fragments of pillars lie in ruins; ſome are of brick, and ſo cemented, that it muſt be as difficult to ſeparate their parts as if they were ſolid blocks of ſtone. There are no openings in the walls from which any thing could have been diſcharged; in the towers there are openings, at regular diſtances, which ſeem to have been deſigned to admit light only: not for any hoſtile purpoſe. Equidiſtant from each of the ſquares is a building of the ſame ſort of ſtone, about fifteen feet ſquare; though it appears to have been much higher, it is ſtill conſiderably more lofty than the other buildings: the ſtairs by which this was aſcended appear perfect from about twelve feet above the ground; what were lower, are now a heap of rubbiſh; there does not remain the appearance of any communication between this and the other buildings; all the interjacent ground is level, and now verdant; no ſtream or well appears nearer than the well we ſtopt at yeſterday, about ſix hours from hence. If this diſtrict could be ſupplied with water, it would be rich indeed; for ſeveral miles onward we thought we diſcovered the remains of trenches or cuts for the conducting of water over the plain. The *Arabs* were entirely ignorant reſpecting theſe extraordinary buildings; when or by whom erected,

erected, or when deſtroyed. The *Shaikh* hurried us away, very much diſſatisfied that we had loſt ſo much time; he ſwears he never will come near it again: the diſtance from *Aleppo* is ſix days' eaſy journey. The *Shaikh* ſays that we are now about forty miles from *Palmyra*, which is on our right, and about fifty from the *Euphrates*, on our left. No perſon at *Aleppo* gave me any hint of ſuch a place. The gentlemen of our factory at *Buſſora* had never heard of it.

PROSOPIS ACULEATA. KŒNIG.

Tſhāmie of the Hindus in the Northern Circars.

By Doctor ROXBURGH.

THIS grows to be a pretty large tree, is a native of moſt parts of the coaſt, chiefly of low lands at a conſiderable diſtance from the ſea, and may be only a variety of *P. Spicegera*, for the thorns are in this ſometimes wanting; flowers during the cold, and beginning of the hot ſeaſons.

Trunk tolerably erect, bark deeply cracked, dirty aſh colour.

Branches irregular, very numerous, forming a pretty large ſhady head.

Prickles ſcattered over the ſmall branches; in ſome trees wanting.

Leaves alternate, generally bipinnate, from two to three inches long; pinnæ from one to four, when in pairs oppoſite, and have a gland between their inſertions.

Leaflets oppoſite, from ſeven to ten pair, obliquely lanced, ſmooth, entire, about half an inch long, and one-ſixth broad.

Stipules none.

Spikes ſeveral, axillary, filiform, nearly erect.

Bracts minute, one-flowered, falling.

Flowers numerous, ſmall, yellow, ſingle, approximated.

Calyx below, five toothed.

Filaments united at the baſe. *Anthers* incumbent, a white gland on the apex of each, which falls off ſoon after the flower expands. *Style* crooked. *Stigma* ſimple.

Legume

Legume long, pendulous, not *inflated.*
Seeds many, lodged in a brown mealy ſubſtance.

The pod of this tree is the only part uſed. It is about an inch in circumference, and from ſix to twelve long; when ripe, brown, ſmooth, and contains, beſides the ſeeds, a large quantity of a brown mealy ſubſtance, which the natives eat; its taſte is ſweetiſh and agreeable; it may therefore be compared to the *Spaniſh Algaroba*, or locuſt-tree. *(Ceratonia Siliqua Linn.)*

NOTE.

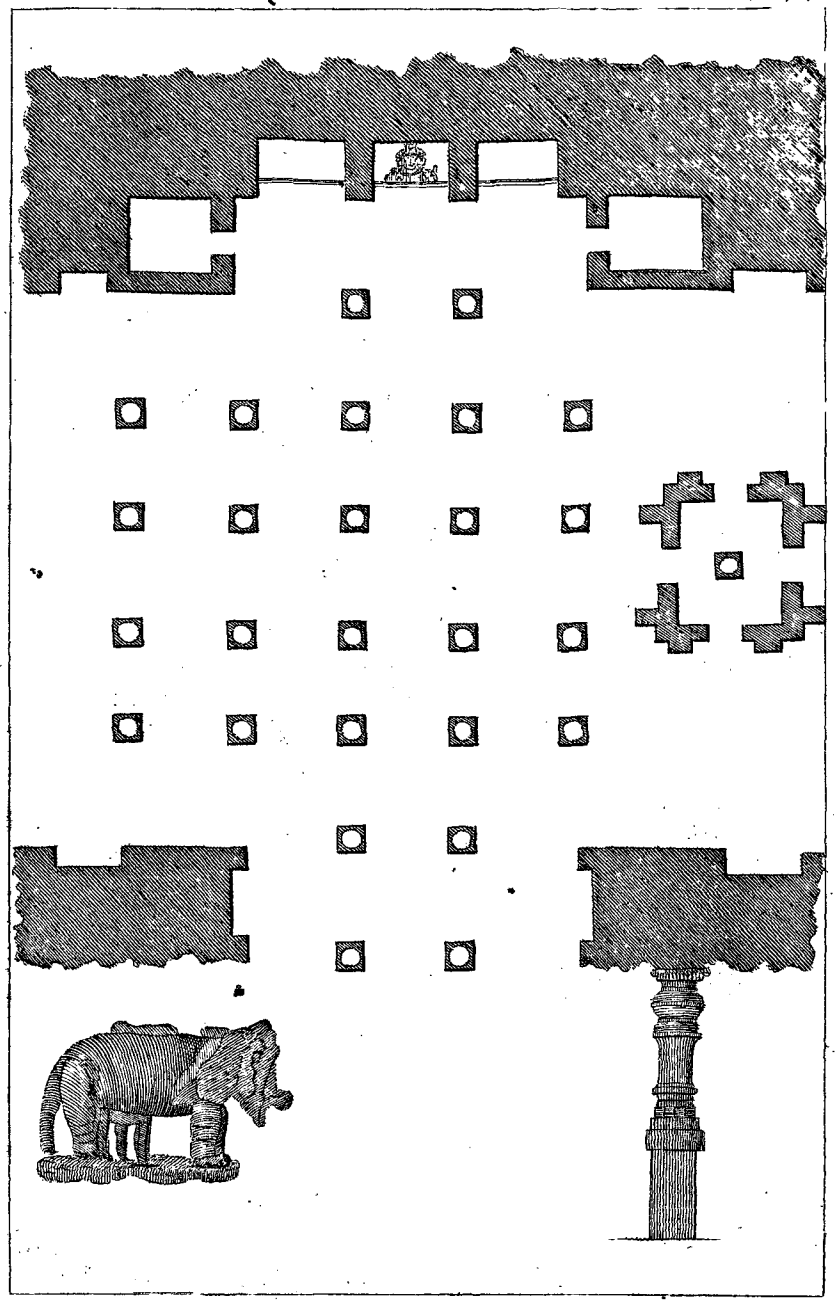
In compliance with Dr. Kœnig's opinion, I have called this a *Proſopis*, though I am aware that the antheral glands give it a claim to the genus Adenanthera.

TO THE RIGHT HON. SIR JOHN SHORE, BART. GOVERNOR GENERAL, AND PRESIDENT OF THE ASIATIC SOCIETY.

DEAR SIR,

I HAVE had from Mr. Goldingham (one of the Honourable Company's aſtronomers at *Fort Saint George*, a perſon of much ingenuity, and who applies himſelf to the ſtudy of antiquities) ſome drawings taken from the cave on the iſland of *Elephanta*. They are the moſt accurate of any I have ſeen, and accompanied with a correct deſcription. This gentleman argues ably in favour of its having been an *Hindu* temple; yet I cannot aſſent to his opinion. The immenſe excavations cut out of the ſolid rock at the *Elephanta*, and other caves of the like nature on the iſland of *Salſette*, appear to me operations of too great labour to have been executed by the hands of ſo feeble and effeminate a race as the aborigines of *India* have generally been held to be, and ſtill continue: and the few figures that yet remain entire, repreſent perſons totally diſtinct in exterior from the preſent *Hindus*, being of a gigantic ſize, having large prominent faces, and bearing ſome reſemblance to the *Abyſſinians*, who inhabit the country on the weſt ſide of the

Red



Red Sea, oppoſite to *Arabia*. There is no tradition of theſe caves having been frequented by the *Hindus* as places of worſhip; and at this period no *poojah* is performed at any of them; and they are ſcarcely ever viſited by the natives. I recollect particularly, that RAGONÀTH ROW, when at *Bombay*, did not at all hold them in any degree of veneration.

I flatter myſelf that you, Sir, will agree with me in thinking the accompanying Memoir deſerving of being inſerted in our Proceedings.

Mr. GOLDINGHAM acquaints me, that he has paid two viſits to ſome curious remains of antiquity, about thirty-five miles ſoutherly of *Madras*, commonly known by the name of the *Seven Pagodas*. He promiſes to tranſmit to me his remarks on theſe curioſities, with copies of the inſcriptions, which are in characters unknown to the people of the diſtrict. He declares himſelf highly ambitious of the favour of being admitted into our Society; and I ſhall be much gratified in being inſtrumental to his obtaining that favour, from a conviction, that he will greatly add to our ſtock of information, and prove an uſeful member.

I cannot conclude an addreſs to you, Sir, as the worthy ſucceſſor of the gentleman who lately preſided over our Society with ſo much credit to himſelf and benefit to the public, without adverting to the memory of Sir WILLIAM JONES, whoſe univerſal ſcience and ardent zeal for diffuſing knowledge, I have had ſo many occaſions to admire during the courſe of an acquaintance of twenty-five years.

I have the honour to be, with the greateſt reſpect,
Dear Sir,
Your moſt faithful and moſt obedient ſervant,

Calcutta, 29*th July*, 1795. J. CARNAC.

SOME ACCOUNT OF THE CAVE IN THE ISLAND OF ELEPHANTA.

By J. GOLDINGHAM, *Eſq.*

THE *Elephanta Cave*, which is ſituated in a ſmall iſland in the harbour of *Bombay*, has deſervedly attracted the attention of the curious; an elephant of black ſtone, large

large as the life, is ſeen near the landing-place, from which the iſland probably took its name; the cave is about three quarters of a mile from the beach; the path leading to it lies through a valley; the hills on either ſide beautifully clothed, and except when interrupted by the dove calling to her abſent mate, a ſolemn ſtillneſs prevails; the mind is fitted for contemplating the approaching ſcene.

The cave is formed in a hill of ſtone; its maſſy roof is ſupported by rows of columns regularly diſpoſed, but of an order different from any in uſe with us *; gigantic figures, in relief, are obſerved on the walls; theſe as well as the columns are ſhaped in the ſolid rock, and by artiſts it would appear poſſeſſed of ſome ability, unqueſtionably of aſtoniſhing perſeverance. Several of the columns have been levelled, and the figures mutilated, as I am informed, by the *Portugueſe*, who were at the trouble (and no ſmall one) of dragging cannon up the hill, for the better execution of this exploit.—Deſtructive Superſtition ſeeks not for merit; ſhe commits to the flames and to deſtruction, members of a community moſt valuable, and ſtructures doing honour to human ability!

The wall at the upper end of the cave is crowded with ſculpture; the attention is firſt arreſted by a grand buſt, repreſenting a being with three heads; the middle face is preſented full, and expreſſes a dignified compoſure; the head and neck ſplendidly covered with ornaments. The face on the left is in profile, and the head-dreſs rich; in one of the hands is a flower, in the other a fruit reſembling a pomegranate; a ring like that worn by the *Hindus* at preſent is obſerved on one of the wriſts; the expreſſion of the countenance by no means unpleaſant. Different is the head on the right; the face is in profile, the forehead projects, the eyes ſtare; ſnakes ſupply the place of hair, and the repreſentation of a human ſcull is conſpicuous on the covering of the head; one hand graſps a monſtrous *Cobra de Capella* (the hooded ſnake), the other a ſmaller; the whole together calculated to ſtrike terror into the beholder. The height of this buſt is about *eighteen* feet, and the breadth of the middle face about *four*; but the annexed drawing of this piece of ſculpture will give a better idea of it perhaps than words.

Each ſide of this niche is ſupported by a gigantic figure leaning on a dwarf, as in the drawing.

A niche of conſiderable dimenſions, and crowded with figures, on either ſide the former; in the middle of the niche, on the right, ſtands a gigantic figure,

* See the ſketch of one of the pillars.

apparently

apparently female, but with *one breaſt* only. This figure has four arms, the foremoſt right hand is leaning on the head of a bull, the other graſps a *Cobra de Cà-pella*, while a circular ſhield is obſerved in the inner left hand; the head is richly ornamented; on the right ſtands a male, bearing a pronged inſtrument, reſembling a trident; on the left is a female, holding a mace or ſceptre; near the principal is a beautiful youth on an elephant; above this is a figure with four heads, ſupported by ſwans or geeſe; and oppoſite is a male with four arms, mounted on the ſhoulders of another, having a ſceptre in one of the hands. At the top of the niche ſmall figures in different attitudes are obſerved, ſeemingly ſupported by clouds.

The moſt conſpicuous of the group on the niche to the left, is a male near ſeventeen feet in height, with four arms; on the left ſtands a female about fifteen feet high. The ſame circular rings worn by the preſent *Hindu* women, are obſerved on the legs and wriſts of this figure; the hair bears a like correſpondence in the mode of putting it up; the countenance is peculiarly ſoft, and expreſſive of gentleneſs. In the back ground, a figure with four heads, ſupported by birds, and one with four arms, on the ſhoulders of another, are alſo obſerved. Several ſmaller figures in attendance: one with the right knee bent to the ground, in the attitude of addreſſing the principal, bears a creſe, exactly reſembling that in preſent uſe. The heads of moſt of the ſmall male figures have a whimſical appearance, being covered with an exact reſemblance of our wigs.

On each ſide of theſe groups is a ſmall dark room, ſacred in ancient times perhaps to all but the unpolluted *Bráhmen*; but bats, ſpiders, ſcorpions, and ſnakes, are now in the poſſeſſion.

Left of the laſt deſcribed group, and nearer the ſide of the cave, is another: a male is obſerved in the action of leading a female towards a majeſtic figure ſeated in the corner of the niche, his head covered like our judges on the bench; the countenance and attitude of the female highly expreſſive of modeſty and a timid reluctance: a male behind urges her forward. Several ſmaller figures compoſe this group.

Curious it is to obſerve all the female figures have ornaments round the wriſts and legs, like thoſe worn by the *Hindu* women at preſent, while the males bearing the ſame correſpondence, have ornaments round the wriſts only.

Oppoſite the laſt niche, and fifty feet nearer the entrance, is another of equal dimenſions, incloſing a figure that forcibly arreſts the attention: it is a gigantic half-

half-length of a male with eight arms; round one of the left arms a belt, compoſed of human heads, is ſeen; a right hand graſps a ſword uplifted to ſever a figure, ſeemingly kneeling (but too much mutilated to diſtinguiſh it properly) on a block, held in the correſpondent left hand; a *Cobra de Capella* riſes under one arm; among the ſingular decorations of the head, a human ſkull is obſerved: above are ſeveral ſmall figures, repreſented in diſtreſs and pain. Many of the figures mutilated, as is the principal, whoſe aſpect poſſeſſes a great degree of unrelenting fierceneſs.

Croſſing to the other ſide of the cave, near one of the ſmall rooms, before-mentioned, a male ſitting as the people of this country do at preſent is obſerved; a female in the ſame poſture on his left, with an attendant on either ſide: at the feet of the male is the figure of a bull couchant; and in each corner of the niche ſtands a gigantic guard. Oppoſite is a correſpondent niche: the figures being a good deal mutilated, and the ſituation dark, prevent theſe being properly diſcriminated; a ſitting male figure, having an attendant on either hand, is however perceived.

A niche filled with figures, greatly defaced, is obſerved on each ſide the entrance. On one ſide is a male that had eight arms, which are all deſtroyed; in the back part is the figure with four heads, ſupported by birds; and the other figure with four arms, whimſically elevated. A large ſitting figure is the principal in the oppoſite niche; a horſe and rider in the back ground; the former capariſoned according to the preſent mode in this country.

On the left ſide and half way up the cave, is an apartment about thirty feet ſquare, encloſing the *Lingam*; an entrance on the four ſides, and each ſide of either entrance is ſupported by a figure ſeventeen feet in height, each figure being ornamented in a different ſtyle.

The part of this ſurpriſing monument of human ſkill and perſeverance hitherto deſcribed, is generally called *the great cave*; its length is 135 feet, and breadth nearly the ſame. A plan accompanies this account, which, however, I cannot venture to pronounce perfectly correct, having miſlaid a memorandum of *particular* parts which were deduced, and with ſufficient correctneſs perhaps from the *general* meaſures preſerved. But there are compartments on both ſides, ſeparated from the great cave, by large fragments of rock and looſe earth, heretofore probably a part of the roof. That on the right is ſpacious, and contains ſeveral pieces of ſculpture; the moſt remarkable is a large figure, the body human, but the head

that

that of an elephant. The lingam is alſo encloſed here. Above each of a line of figures, ſtanding in a dark ſituation, is a piece of ſculpture, pointed out to me as an inſcription: however (with the aſſiſtance of a torch) I found one an exact copy of the other, and with little reſemblance of characters.

The compartment on the other ſide contains ſeveral ſculptures, and among the reſt, a figure with an elephant's head and human body. A deep cavity in the rock hereabout contains excellent water, which, being ſheltered from the influence of the ſun, is always cool, and deſervedly held in eſtimation by thoſe whom curioſity leads here through a ſcorching atmoſphere. A traditional account of the extent of this cavity, and the communication of its waters by ſubterraneous paſſages, with others, very diſtant, was given me by a native of the iſland, which would make a conſiderable figure in the hands of a poet.

Gigantic as the figures are, the mind is not diſagreeably moved on viewing them, a certain indication of the harmony of the proportions. Having meaſured three or four, and examined the proportions by the ſcale we allow the moſt correct, I found many ſtood even this teſt, while the diſagreements were not equal to what are met with every day in people whom we think by no means ill proportioned.

The iſland wherein theſe curious remains of antiquity are ſituated, is about five miles and a half from *Bombay*, in an eaſterly direction; its circumference cannot be more than five miles: a neat village near the landing-place contains all its inhabitants, whom, incluſive of women and children, number about one hundred. Their anceſtors, they tell you, having been improperly treated by the *Portugueſe*, fled from the oppoſite iſland of *Salſet* hither, cultivating rice, and rearing goats for their ſupport. In the ſame humble road do they continue. The iſlanders have no boat; they cut wood from the adjoining hills, which the purchaſers remove in boats of their own; they are under our protection, and pay about fifty-ſix pounds annually to the government; the ſurplus revenue furniſhes their ſimple clothing. By perſevering in this humble path, theſe harmleſs people continue to rejoice in tranquillity under their banyan-tree. The cave, they tell you, was formed by the Gods: and this is all they pretend to know of the matter.

Various have been, and are to this day, the conjectures reſpecting the *Elephanta Cave*. Thoſe who attempt to deduce its origin from the *Egyptians*, from the *Jews*, or from ALEXANDER *the Great*, appear to me, with due deference, to give themſelves much unneceſſary trouble; which I ſhall further endeavour to ſhew as briefly

briefly as the ſubject will admit of, though at the ſame time it muſt be obſerved, that reſembling features are not wanting in the caſe of the *Egyptians* and of the *Jews*, to lead towards ſuch deductions; but theſe reſemblances ſtrike me as tending to the elucidation of a more intereſting hypotheſis, *viz.* That the ſyſtems of thoſe people were *copies* of an *original*, found in *this part of the world.*

The ſtriking reſemblance in ſeveral particulars of the figures in the cave to the preſent *Hindu* race, would induce thoſe who from hiſtory, as well as from obſervation, have reaſon to believe they have preſerved the ſame cuſtoms from times immemorial, to imagine the anceſtors of theſe people its fabricators; but thoſe who are in a ſmall degree acquainted with their *mythology*, will be perſuaded of it; nor is a much greater extent of knowledge requiſite to enable us to diſcover it to be a temple dedicated principally to SIVA, the *deſtroyer* or *changer.*

The *buſt* is doubtleſs a perſonification of the three grand *Hindu* attributes of that *Being* for *whom* the ancient *Hindus* entertained the moſt profound veneration, and of *whom* they had the moſt ſublime conceptions. The middle head repreſents BRAHMA, or the creative attribute; that on the left, VISHNU, or the preſerving; and the head on the right, SIVA, or the deſtructive or changing attribute.

The figure with *one breaſt* has been thought by moſt to repreſent *an Amazon*; it however, appears to me a repreſentation of the *conſort of* SIVA, exhibiting the active power of her lord; not only as BAWANI, or courage, but as ISANI, or the goddeſs of nature, conſidered as male and female, and preſiding over generation, and alſo as DURGA. Here we find the bull of ISWARA (one of SIVA's names), and the figure bearing his triſulc, or trident. The beautiful figure on the elephant is, I imagine, CAMA, or the *Hindu* God of Love; the figure with *four heads*, ſupported by *birds*, is a repreſentation of BRAHMA; and that with *four arms*, mounted on the ſhoulders of another, is VISHNU.

The two principal figures in the niche to the left, repreſent, perhaps, SIVA and his Goddeſs as PARVATI. Here, as before, we obſerve BRAHMA and VISHNU in the *back ground.*

The terrific figure with eight arms has been much talked of; ſome will have it to repreſent SOLOMON; threatening to divide the harlot's child; others, with more reaſon on their ſide, ſuppoſe it to repreſent the tyrant CANSA, attempting the life of the infant God CHRISHNA, when foſtered by the herdſman ANANDA. To me, the third attribute, or the *deſtroyer in action*, appears too well repreſented to be miſtaken. The diſtant ſcene, where the ſmaller figures appear in diſtreſs and

pain,

pain, is perhaps the infernal regions. The figure about to be deſtroyed, does not ſeem to me an infant, but a full grown perſon; if, indeed, the *deſtroyer* was of the human ſize, the figure in queſtion would bear the proper proportion as an infant; but as he is of enormous magnitude, a human *being*, full grown, would appear but an infant by the ſide of him; and thus it is, I imagine, that people have been deceived: a caſe by no means uncommon in circumſtances like the preſent.

The ſitting male and female figures, having a bull couching at the feet of the former, are SIVA and his Goddeſs; and thus are they repreſented in the pagodas of the preſent day.

No perſon can miſtake the figure with the human body and elephant's head for any other than GANE'SA, the *Hindu* God of Wiſdom, and the firſt born of SIVA; and thus is he repreſented at preſent.

From what has been advanced, it will appear inconteſtible, I imagine, that this is a *Hindu temple*; whence the *Lingam* is a teſtimony, ſufficient of SIVA's having preſided here, without the other evidences which the intelligent in the *Hindu* mythology will have diſcovered in the courſe of this account.

To deduce the æra of the fabrication of this ſtructure is not ſo eaſy a taſk; but it was, no doubt, poſterior to the great ſchiſm in the *Hindu* religion, which according to the *Puranas*, I learn, happened at a period coeval with our date of the creation. Be this as it may, we have accounts of powerful princes who ruled this part of the country of a later date, particularly of one who uſurped the government in the ninetieth year of the *Chriſtian* æra, famed for a paſſion for architecture. Many worſe hypotheſes have been, than one which might be formed of his having founded the cave; but I am led to imagine, no certain concluſions on this dark ſubject could be drawn from the ſources of information open at preſent.

AN ACCOUNT OF THE PRESENT STATE OF DELHI.

By Lieut. W. FRANKLIN.

THE once celebrated city of *Delhi*, the capital of *Muſſulman* ſovereignty in *Hindoſtan*, and in more early times, the ſeat of *Hindu* dominion over northern *India*, has employed

employed the pen of many different authors, *Aſiatic* and *European*; though of the latter in a leſs degree than might have been expected.

The following account of the preſent ſtate of this ancient city, is extracted from a journal of obſervations made during an official tour through the *Dovab* and the adjacent diſtricts, in company with Captain REYNOLDS, of the *Bombay* eſtabliſhment, appointed by the *Bengal* government to ſurvey that part of the country in the year 1793.

It cannot be ſuppoſed to contain much new information on things already deſcribed by others; but as a faithful ſtatement of the actual condition of the once flouriſhing metropolis of a great kingdom now in ruins, it may be acceptable; and in this hope it is offered with deference to the Society: who will judge whether it be deſerving of more general diffuſion by publication with their more important reſearches.

The extent of the ruins of old *Delhi* cannot, I ſuppoſe, be leſs than a circumference of twenty miles, reckoning from the gardens of *Shalimar*, on the north-weſt, to the *Kuttub Minar* on the ſouth-eaſt; and proceeding from thence along the heart of the old city by way of the mauſoleum of NIZAM-U-DEEN, on which ſtands HUMAIOON's tomb, and the old fort of *Delhi* on the banks of the *Jumna*, to the *Ajmere* gate of *Shah Jehanabad*.

The environs to the north-weſt are crowded with the remains of ſpacious gardens and country-houſes of the nobility, which were formerly abundantly ſupplied with water by means of the noble canal dug by ALI MIRDAN KHAN, and which formerly extended from above *Paniput* quite down to *Delhi*, where it joined the *Jumna*; fertilizing in its courſe a tract of more than ninety miles in length, and beſtowing comfort and affluence on thoſe who lived within its extent. This canal, as it run through the ſuburbs of *Mogul Parah*, nearly three miles in length, was about twenty-five feet deep, and about as much in breadth, cut from the ſolid ſtone-quarry, on each ſide, from which moſt of the houſes in the neighbourhood have been built. It had ſmall bridges erected over it at different places, ſome of which communicated with the garden-houſes of the nobility.

In the year of the *Hagiree* 1041 (A. C. 1631-2) the Emperor SHAH-JEHAN founded the preſent city and palace of *Shah-Jehanabad*, which he made his capital during the remainder of his reign. The new city of *Shah-Jehanabad* lies on the weſtern bank of the *Jumna*, in latitude 28° 36′ north. The city is about ſeven miles in circumference, and is ſurrounded on three ſides by a wall of brick and ſtone;

ſtone; a parapet runs along the whole, with loopholes for muſquetry; but there are no cannon planted on the ramparts. The city has ſeven gates; viz. *Lahore* gate, *Ajmere* gate, *Turkoman* gate, *Delhi* gate, *Moor* gate, *Cabul* gate, and *Caſhmere* gate; all of which are built of free-ſtone, and have handſome arched entrances of ſtone, where the guards of the city keep watch. Near the *Ajmere* gate is a *Madriſſa*, or college, erected by GHAZI-U-DEEN KHAN, nephew of NIZAM-UL-MOOLLUCK: it is built of red ſtone, and ſituated at the centre of a ſpacious quadrangle, with a ſtone fountain. At the upper end of the area is a handſome moſque built of red ſtone, inlaid with white marble. The apartments for the ſtudents are on the ſides of the ſquare, divided into ſeparate chambers, which are ſmall but commodious. The tomb of GHAZI is in the corner of the ſquare, ſurrounded by a ſhrine of white marble, pierced with lattice-work. The college is now ſhut up, and without inhabitants. In the neighbourhood of the *Cabul* gate is a garden, called *Tees Huzzari Baug*, in which is the tomb of the queen MALKA-ZEMANI, wife of the emperor MOHUMMUD SHAH: a marble tablet, placed at the head of the grave, is engraved with ſome *Perſian* couplets informing us of the date of her death, which happened five years ſince, *ann. Hagiree* 1203. Near this tomb is another, of the princeſs ZEEBUL NISSAH BEEGUM, daughter of AURUNGZEBE. On a riſing ground near this garden, from whence there is a fine proſpect of *Shah Jehanabad*, are two broken columns of brown granate, eight feet high, and two and a half in breadth, on which are inſcriptions in an ancient character.

Within the city of new *Delhi* are the remains of many ſplendid palaces belonging to the great Omrahs of the empire. Among the largeſt are thoſe of KUMMER-U-DEEN KHAN, *Vizier* to MOHUMMUD SHAH; ALI MIRDAN KHAN, the *Perſian*; the *Nabob* GHAZI-U-DEEN KHAN; SEFDUR JUNG'S; the garden of COODSEAH BEGUM, mother to MOHUMMUD SHAH; the palace of SADUT KHAN; and that of SULTAN DARAH SHEKOAH. All theſe palaces are ſurrounded with high walls, and take up a conſiderable ſpace of ground. Their entrances are through lofty arched gateways of brick and ſtone, at the top of which are the galleries for muſic: before each is a ſpacious court yard for the elephants, horſes, and attendants of the viſitors. Each palace has likewiſe a *Mahal*, or Seraglio, adjoining; which is ſeparated from the *Dewan Khana* by a partition-wall, and communicates by means of private paſſages. All of them had gardens with capacious ſtone reſervoirs and fountains in the centre; an ample terrace extended round the

whole

whole of each particular palace; and within the walls were houſes and apartments for ſervants and followers of every deſcription, beſides ſtabling for horſes, *Feel Khanas*, and every thing belonging to a nobleman's ſuit. Each palace was likewiſe provided with a handſome ſet of baths, and a *Teh Khana* under ground. The baths of SADUT KHAN are a ſet of beautiful rooms, paved and lined with white marble: they conſiſt of five diſtinct apartments, into which light is admitted by glazed windows from the top of the domes. SUFDER JUNG's *Teh Khana* conſiſts of a ſet of apartments, built in a light delicate manner; one long room, in which is a marble reſervoir, the whole length, and a ſmall room, raiſed and balluſtraded on each ſide, both faced throughout with white marble.

SHAH JEHANABAD is adorned with many fine moſques, ſeveral of which are ſtill in perfect beauty and repair. The following are moſt worthy of being deſcribed: the firſt, the *Jama Musjed*, or great cathedral. This moſque is ſituated about a quarter of a mile from the royal palace; the foundation of it was laid upon a rocky eminence, named *Jujula Pahar*, and has been ſcarped on purpoſe. The aſcent to it is by a flight of ſtone ſteps, thirty-five in number, through a handſome gateway of red ſtone. The doors of this gateway are covered throughout with plates of wrought braſs, which Mr. BERNIER imagined to be copper. The terrace on which the moſque is ſituated, is a ſquare of about fourteen hundred yards of red ſtone; in the centre is a fountain lined with marble, for the purpoſe of performing the neceſſary ablutions previous to prayer. An arched colonade of red ſtone ſurrounds the whole of the terrace, which is adorned with octagon pavillions at convenient diſtance, for ſitting in. The moſque is of an oblong form, two hundred and ſixty-one feet in length, ſurrounded at top by three magnificent domes of white marble, interſected with black ſtripes, and flanked by two *Minarets* of black marble and red ſtone alternately, riſing to the height of a hundred and thirty feet. Each of theſe *Minarets* has three projecting galleries of white marble; and their ſummits are crowned with light octagon pavillions of the ſame. The whole front of the *Jama Musjed* is faced with large ſlabs of beautiful white marble; and along the cornice are ten compartments, four feet long, and two and a half broad, which are inlaid with inſcriptions in black marble, in the *Nuſki* character, and are ſaid to contain great part, if not the whole, of the *Koran*. The inſide of the moſque is paved throughout with large flags of white marble, decorated with a black border; and is wonderfully beautiful and delicate: the flags are about three feet in length by one and a half broad. The walls and roof are lined with plain white marble;

and

and near the *Kibla* is a handſome *taak*, or niche, adorned with a profuſion of freeze-work. Cloſe to this is a *mimber*, or pulpit, of marble, having an aſcent of four ſteps, and balluſtraded. The aſcent to the *Minarets* is by a winding ſtair-caſe of a hundred and thirty ſteps of red ſtone; and at the top you have a noble view of the king's palace, and the whole of the *Cuttub Minar*, the *Kurrun Minar*, HUMAIOON's tomb, the palace of FEROSE SHAH, the fort of old *Delhi*, and the fort of *Loni*, on the oppoſite of the *Jumna*. The domes are crowned with culliſes, richly gilt, and preſent a glittering appearance from a diſtance. This moſque was begun by SHAH JEHAN, in the fourth year of his reign, and completed in the tenth: the expences of its erection amounted to ten lacks of rupees; and it is in every reſpect worthy of being the grand cathedral of the empire of *Indoſtan*.

Not far from the palace is the moſque of ROSHUN-A-DOWLAH, rendered memorable to the *Delhians* for being the place where NADIR SHAH ſaw the maſſacre of the unfortunate inhabitants. The cauſe aſſigned by hiſtorians for this unhuman act is, that a ſedition broke out in the great market, in which two thouſand *Perſians* were ſlain. NADIR, on hearing of the tumult, marched out of the fort at night with a ſmall force to the *Musjed* of ROSHUN-A-DOWLAH; where he was fired upon in the morning from a neighbouring terrace, and an officer killed cloſe by his ſide. He inſtantly ordered an indiſcriminate ſlaughter of the inhabitants; and his ſquadrons of cavalry pouring through the ſtreets, before the afternoon put to death a hundred thouſand perſons of all deſcriptions. "The King of *Perſia*," ſays the tranſlator of FERISTHA, "ſat, during the dreadful ſcene, in the *Musjed* of Ro-"SHUN-A-DOWLAH. None but ſlaves durſt come near him, for his countenance "was dark and terrible. At length the unfortunate emperor, attended by a num-"ber of his chief Omrahs, ventured to approach him with downcaſt eyes. The "Omrahs who preceded MOHUMMUD, bowed down their foreheads to the ground. "NADIR SHAH ſternly aſked them what they wanted; they cried out with one voice, "Spare the city. MOHUMMUD ſaid not a word, but tears flowed faſt from his eyes; "the tyrant, for once touched with pity, ſheathed his ſword, and ſaid, For the "ſake of the prince MOHUMMUD, I forgive." Since this dreadful maſſacre this quarter of *Delhi* has been but very thinly inhabited. The moſque of ROSHUN-A-DOWLAH is ſituated at the entrance of the *Chandney Choke*, or market; it is built of red ſtone, of the common ſize, and ſurmounted by three domes richly gilt.

ZEENUL-AL-MUSSAJID, or the ornament of moſques, is on the banks of the *Jumna*, and was erected by a daughter of AURUNGZEBE, of the name of ZEENUT

AL

AL NISSA'H. It is of red ſtone with inlayings of marble, and has a ſpacious terrace in front of it, with a capacious reſervoir faced with marble. The princeſs who built it, having declined entering into the marriage ſtate, laid out a large ſum of money in the above moſque, and, on completing it, ſhe built a ſmall ſepulchre of white marble, ſurrounded by a wall of the ſame, in the weſt corner of the terrace. In this tomb ſhe was buried in the year of the *Hegira* 1122, correſponding with the year of CHRIST 1710. There were formerly lands allotted for the ſupport and repairs of this place, amounting to a lack of rupees *per annum*; but they all have been confiſcated during the troubles this city has undergone. Excluſive of the moſques above deſcribed, there are in *Shah Jehanabad* and its environs above forty others; but as moſt of them are of inferior ſize, and all of them of the ſame faſhion, it is unneceſſary to preſent any further detail.

The modern city of *Shah Jehanabad* is rebuilt, and contains many good houſes, chiefly of brick. The ſtreets are in general narrow, as is uſual in moſt of the large cities of *Aſia*; but there were formerly two very noble ſtreets; the firſt leading from the palace gate through the city to the *Delhi* gate, in a direction north and ſouth. This ſtreet was broad and ſpacious, having handſome houſes on each ſide of the way, and merchants ſhops well furniſhed with the richeſt articles of all kinds. SHAH JEHAN cauſed an aqueduct to be made of red ſtone, which conveyed the water along the whole length of the ſtreet, and from thence into the royal gardens, by means of a reſervoir under ground. Some remains of the aqueduct are ſtill to be ſeen; but it is choaked up in moſt parts with rubbiſh. The ſecond grand ſtreet was likewiſe from the palace to the *Lahore* gate, lying eaſt and weſt: it was equal in many reſpects to the former; but in both of them the inhabitants have ſpoiled their appearance, by running a line of houſes down the centre, and acroſs the ſtreets in other places, ſo that it is with difficulty a perſon can diſcover their former ſituation without a narrow inſpection. The bazars in *Delhi* are but indifferently furniſhed at preſent, and the population of the city miſerably reduced of late years: the *Chandney Choke* is the beſt furniſhed bazar in the city, though the commerce is very trifling. Cotton cloths are ſtill manufactured, and the inhabitants export indigo. Their chief imports are by means of the northern caravans which come once a year, and bring with them from *Cabul* and *Caſhmere* ſhawls, fruit, and horſes; the two former articles are procurable in *Delhi* at a reaſonable rate. There is alſo a manufacture at *Delhi* for beedree hooka bottoms. The cultivation about the city is principally on the banks of the *Jumna*, where it

is

is very good; the neighbourhood produces corn and rice, millet and indigo. The limes are very large and fine. Precious ſtones likewiſe are to be had at *Delhi*, of very good quality, particularly the large red and black cornelians; and peerozas are ſold in the bazars.

The city is divided into thirty-ſix mohauls or quarters, each of which is named either after the particular Omrah who reſided there, or from ſome local circumſtance relative to the place. It appears that the modern city of *Shah Jehanabad* has been built principally upon two rocky eminences; the one where the *Jama Musjid* is ſituated, named *Jujula Pahar*; and the other, the quarter of the oil-ſellers, called *Bejula Pahar:* from both of theſe eminences you have a commanding view of the remainder of the city. Ancient *Delhi* is ſaid by hiſtorians to have been erected by Rajah DELU, who reigned in *Hindoſtan* prior to the invaſion of ALEXANDER the Great; others affirm it to have been built by Rajah PETTOURAH, who flouriſhed in a much later period. It is called in *Sanſcrit Indraput*, or the abode of INDRA, one of the *Hindu* deities; and it is alſo thus diſtinguiſhed in the royal diplomas of the chancery office. Whether the city be of the antiquity reported, it is difficult to determine: but this much is certain, that the vaſt quantity of buildings which are to be found in the environs for upwards of twenty miles in extent, as well as their grandeur and ſtyle of architecture, prove it to have once been a rich, flouriſhing, and populous city.

On the 11th of *March* we were preſented to the King SHAH ALLUM. After entering the palace, we were carried to the *Dewaun Khanah*, or hall of audience for the nobility, in the middle of which was a throne raiſed about a foot and a half from the ground. In the centre of this elevation was placed a chair of crimſon velvet, bound with gold claſps, and over the whole was thrown an embroidered covering of gold and ſilver thread: a handſome *Samianah*, ſupported by four pillars incruſted with ſilver, was placed over the chair of ſtate. The King at this time was in the *Tuſbeah Khanah:* an apartment in which he generally ſits. On paſſing a ſkreen of *Indian* connaughts, we proceeded to the front of the *Tuſbeah Khanah*, and being arrived in the preſence of the King, each of us made three obeiſances in turn, by throwing down the right hand pretty low, and afterwards raiſing it to the forehead; we then went up to the Muſnud on which his Majeſty was ſitting, and preſented our nuzzers on white handkerchiefs, each of our names being announced at the time we offered them: the King received the whole, and gave the nuzzers to MIRZA AKBER SHAH, and two other princes who ſat on his left hand. We

then went back, with our faces towards the preſence, made the ſame obeiſance as before, and returned again to the Muſnud. After a ſlight converſation, we were directed to go without the incloſure, and put on the *Khelauts* which his Majeſty ordered for us; they conſiſted of light *India* dreſſes; a turban, jammah, and kummerbund, all cotton, with ſmall gold ſprigs. On being clothed in theſe dreſſes, we again returned to the *Tuſbeah Khanah*, and after a few minutes ſtay, previous to which Captain REYNOLDS received a ſword from the King, we had our diſmiſſion; and ſome ſervants were ordered to attend us in viewing the palace.

The preſent King, SHAH ALLUM, is ſeventy-two years of age; of a tall commanding ſtature, and dark complexion; his deportment was dignified, and not at all diminiſhed by his want of ſight, though he has ſuffered that cruel misfortune above five years. The marks of age are very ſtrongly diſcernible in his countenance: his beard is ſhort and white. His Majeſty appeared at our introduction to be in good ſpirits; ſaid he was happy at our arrival; and deſired we would viſit his palace and the fort of *Selim Ghur*. He was dreſſed in a rich kheem-khaub, and was ſupported by pillows of the ſame materials.

I imagined I could obſerve in his aſpect a thoughtfulneſs, as if ſufficiently well acquainted with his preſent degraded ſituation, and the recollection of his former ſtate.

The palace of the royal family of TIMUR was erected by the Emperor SHAH JEHAN at the time he finiſhed the new city: it is ſituated on the weſtern bank of the *Jumna*, and ſurrounded on three ſides by a wall of red ſtone. I ſuppoſe the circumference of the whole to be about a mile. The two ſtone figures, mentioned by BERNIER, at the entrance of the palace, which repreſented the Rajah of *Chitore* and his brother POTTAH, ſeated on two elephants of ſtone, are not now to be ſeen; they were removed by order of AURUNGZEBE, as favouring too much of idolatry; and he encloſed the place where they ſtood with a ſkreen of red ſtone, which has diſfigured the entrance of the palace. The firſt object that attracts the attention after entering the palace, is the *Dewaun Aum*, or public hall of audience, for all deſcriptions of people. It is ſituated at the upper end of a ſpacious ſquare, and is a noble building, but at preſent much in decay. On each ſide of the *Dewaun Aum*, and all round this ſquare, are apartments of two ſtories high, the walls and front of which, in the times of the ſplendor of the empire, were adorned with a profuſion of the richeſt tapeſtry, velvets, and ſilks; the nobles vying with each other in rendering them the moſt magnificent, eſpecially on feſtivals,

vals, and days of public rejoicings, when they preſented a grand ſight. Theſe decorations have however been long ſince laid aſide, and nothing but the bare walls remained. From the *Dewaun Aum*, we proceeded thro' another handſome gateway to the *Dewaun Khaſs*, before mentioned. The building is ſituated at the upper end of a ſpacious ſquare, and elevated upon a marble terrace, about four feet high. The *Dewaun Khaſs* in former times has been adorned with exceſſive magnificence, and though ſtripped and plundered by various invaders, ſtill retains ſufficient beauty to render it admired. I judge the building to be a hundred and fifty feet in length, by forty in breadth. The roof is flat, ſupported by a great many columns of fine white marble, which have been richly adorned with inlaid flower-work of beautiful ſtones: the cornices and borders have been decorated with a great quantity of frieze and ſculptured work. The ceiling was formerly incruſted with a work of rich foliage of ſilver throughout the whole extent, which has been long ſince taken off and carried away. The delicacy of the inlaying in the compartments of the walls is much to be admired; and it is matter of heartfelt regret to ſee the barbarous ravages that have been made in picking out the different cornelians, and breaking the marble by violence. Around the interior of the *Dewaun Khaſs*, in the cornice, are the following lines, engraved in letters of gold, upon a white marble ground:

" If there be a paradiſe upon earth, this is it—'tis this, 'tis this." The terrace on which the *Dewaun Khanah* is built is compoſed of large beautiful ſlabs of white marble; and the building is crowned at top with four pavillions or cupolas, of the ſame materials.

The royal baths, built by SHAH JEHAN, are ſituated a little to the northward of the *Dewaun Khaſs*, and conſiſt of three very large apartments ſurmounted by white marble domes. The inſide of the baths is lined, about two thirds of the way up, with marble, having a beautiful border of flower-worked cornelians and other precious ſtones, executed with taſte. The floors are paved throughout with marble in large ſlabs, and there is a fountain in the centre of each, with many pipes: large reſervoirs of marble, about four feet deep, are placed in different parts of the walls; the light is admitted from the roof by windows of party-coloured glaſſes; and capacious ſtones, with iron gratings, are placed underneath each ſeparate apartment. There is a noble moſque adjoining, entirely of white marble, and made after the faſhion deſcribed above. In the *Shah Baug*, or the royal gardens, is a very large octagon room, which looks towards the river *Jumna*. This room is called

Shah

Shah Boorj, or the royal tower; it is lined with marble; and from the window of it the late heir apparent, MIRZA JUWAN BUKHT, made his eſcape in the year 1784, when he fled to *Lucknow*: he deſcended by means of a ladder made with turbans; and as the height is inconſiderable, effected it with eaſe. A great part of this noble palace has ſuffered very much by the deſtructive ravages of the late invaders. The *Rohillas* in particular, who were introduced by GHOLAUM KAUDER, have ſtripped many of the rooms of their marble ornaments and pavements, and have even picked out the ſtones from the borders of many of the floorings. Adjoining is the fortreſs of *Selim Ghur*, which you reach by a ſtone bridge, built over an arm of the *Jumna*. The fort is now entirely in ruins. At the eaſtern end of it we were ſhewn the ſally-port, from which GOLUAM KAUDER KHAN made his eſcape with all his retinue, when the place was beſieged by the *Mahrattas* in 1788. The river *Jumna* running directly underneath this baſtion, the tyrant croſſed it immediately, and fled to *Meerut*, in the *Dooab*.

The *Gentur Munter*, or obſervatory, in the vicinity of *Delhi*, has been deſcribed by former travellers. It was built in the third year of the reign of *Mohummed Shah*, by the Rajah *Jeyſing*, who was aſſiſted by many perſons celebrated for their ſcience in aſtronomy from *Perſia*, *India*, and *Europe*; but died before the work was completed; and it has ſince been plundered, and almoſt deſtroyed by the *Jeits*, under *Juwaher Sing*.

I will only add a ſhort account of the royal gardens of *Shalimar*. Theſe gardens, made by the Emperor *Shah Jehan*, were begun in the fourth year of his reign, and finiſhed in the thirteenth; on which occaſion, according to Colonel *Dow*, the Emperor gave a grand feſtival to his court. Theſe gardens were laid out with admirable taſte, and coſt the enormous ſum of a million ſterling: at preſent their appearance does not give cauſe to ſuppoſe ſuch an immenſe ſum has been laid out upon them; but great part of the moſt valuable and coſtly materials have been carried away. The entrance to them is through a gateway of brick; and a canal, lined with ſtone, having walks on each ſide with a brick-pavement, leads up to the *Dewaun Khanah*, or hall of audience; moſt part of which is now fallen down: from thence, by a noble canal, having a fountain in the center, you proceed to the apartments of the *Haram*, which embrace a large extent of ground. In the front is an *Ivan*, or open hall, with adjoining apartments; the interior of which are decorated with a beautiful border of white and gold painting, upon a ground of the fineſt chunam. At the upper end of this *Ivan* was formerly a marble throne, raiſed about

about three feet from the ground; all of which is removed. On each ſide of this *Ivan*, incloſed by high walls, are the apartments of the *Haram*, ſome of which are built of red ſtone, and ſome of the brick faced with fine chunam, and decorated with paintings of flowers of various patterns. All theſe apartments have winding paſſages which communicate with each other, and the gardens adjoining by private doors. The extent of *Shalimar* does not appear to have been large: I ſuppoſe the gardens altogether are not above a mile in circumference. A high brick-wall runs around the whole, which is deſtroyed in many parts of it, and the extremities are flanked with octagon pavilions of red ſtone. The gardens ſtill abound with trees of a very large ſize, and very old. The proſpect to the ſouthward of *Shalimar* towards *Delhi*, as far as the eye can reach, is covered with the remains of extenſive gardens, pavilions, moſques, and burying-places, all deſolate and in ruins. The environs of this once magnificent and celebrated city appear now nothing more than a ſhapeleſs heap of ruins; and the country round about is equally forlorn.

ASIATICK RESEARCHES:

OR,

TRANSACTIONS

OF THE

SOCIETY INSTITUTED IN BENGAL,

FOR INQUIRING INTO THE

HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES, AND LITERATURE,

OF

A S I A.

VOLUME THE FIFTH.

ADVERTISEMENT.

IN the diſſertation on the Religious Ceremonies of the Hindus, inſerted in the preſent Volume, the author cites a paſſage, which appears to have reference to the creation of the univerſe, and which ſeems, upon the whole, to bear ſome reſemblance to the account given by Moſes in the Pentateuch. This naturally leads us to conſider the antiquity of both the Moſaic and Hindu Scriptures, and to compare, in ſome meaſure, the accounts given in each work relative to that important fact.

The writings of MOSES have generally been conſidered as more ancient than thoſe of any other perſon; but the Hindu Scriptures, ſo far as the reſearches of ſeveral learned men have extended, appear to be of very high antiquity, and are even carried by ſome beyond the time of the Hebrew Lawgiver. Sir W. JONES, in his Preface to the "Inſtitutes of Hindu Law, or the Ordinances of MENU, according to the Gloſs of CULLU'CA," carries the higheſt age of the *Yajur véda* 1580 years before the birth of CHRIST, which is nine years previous to the birth of MOSES, and ninety before MOSES departed from Egypt with the Iſraelites. This date, of 1580 years before CHRIST, ſeems the more probable, becauſe the Hindu ſages are ſaid to have delivered their knowledge orally. CULLU'A BHATTA produced, what may be ſaid to be very truly, the ſhorteſt, yet the moſt luminous; the leaſt oſtentatious, yet the moſt learned; the deepeſt, yet the moſt agreeable, commentary on the Hindu Scriptures, that ever was compoſed on any author ancient or modern, European or Aſiatick: and it is this work to which the learned generally apply, on account of its clearneſs. We ſhall not, however, take up your time with a diſſertation on the exact age of either the Hebrew or the Hindu Scriptures: both are ancient: let the learned judge: but ſome extracts from the Hindu and Hebrew accounts of the creation may ſerve to ſhew how much they agree together: whether the Hindu Bráhmens borrowed from MOSES, or MOSES from the Hindu Bráhmens, is not our preſent enquiry.

Extracts from the Laws of MENU.

THIS *univerſe* exiſted only *in the firſt divine idea yet unexpanded, as if involved* in

Extracts from the Writings of MOSES.

IN the begining God created the heaven and the earth. (Gen. i. 1.)

darkneſs,

MĒNU.

darkneſs, imperceptible, undefinable, undiſcoverable *by reaſon, and* undiſcovered *by revelation*, as if it were wholly immerſed in ſleep. (chap. i. 5.)

Then the *ſole* ſelf-exiſting power, himſelf undiſcerned, but making this world diſcernible, with five elements and other principles *of nature*, appeared with undiminiſhed glory, *expanding his idea*, or diſpelling the gloom. (ib. 6.)

He, whom the mind alone can perceive, whoſe eſſence eludes the external organs, who has no viſible parts, who exiſts from eternity, even HE, the ſoul of all beings, whom no being can comprehend, ſhone forth in perſon. (ib. 7.)

He, having willed to produce various beings from his own divine ſubſtance, firſt with a thought created the waters, &c. (ib. 8.)

The waters are called *nárá*, becauſe they were the production of NARA, *or the ſpirit of God;* and, ſince they were his firſt *ayana*, or *place of motion*, he thence is named NA'RA'YANA, or *moving on the waters*. (ib. 10.)

From THAT WHICH IS, the firſt cauſe, not the object of ſenſe, exiſting *every where in ſubſtance*, not exiſting *to our perception*, without beginning or end, was produced the divine male. (ib. 11.)

—He framed the heaven *above* and the earth *beneath:* in the midſt *he placed* the ſubtil ether, the eight regions, and the permanent receptacle of waters. (ib. 13.)

MOSES.

And the earth was without form, and void; and darkneſs was upon the face of the deep: and the Spirit of God moved upon the face of the waters. (ib. 2.)

And God ſaid, Let us make man in our image. (ib. 26.)

And God ſaid, Let there be a firmament in the midſt of the waters;—and God called the firmament Heaven. (ib. 6, 8.)

MENU.	MOSES.
—He framed all creatures. (ib. 16.)	And God ſaid, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. And God created great whales, and every living creature that moveth, which the waters brought forth abundantly after their kind, and every winged fowl after his kind. And God ſaid, Let the earth bring forth the living creature after his kind, cattle and creeping thing, and beaſt of the earth after his kind. (ib. 20, 21, 24.)
—He too firſt aſſigned to all creatures diſtinct names, diſtinct acts, and diſtinct occupations. (ib. 21.)	God brought every beaſt of the field unto Adam to ſee what he would call them. And God put the man into the garden of Eden to dreſs it and to keep it. Abel was a keeper of ſheep, but Cain was a tiller of the ground. (ib. ii. 19, 15. iv. 2.)
—He gave being to time and the diviſions of time, to the ſtars alſo, and the planets, to rivers, oceans, and mountains, to level plains, and uneven vallies. (ib. 24.)	God ſaid, Let there be lights in the firmament of heaven, to divide the day from the night; and let them be for ſigns, and for days, and for years.—And God made two great lights; the greater light to rule the day, and the leſſer light to rule the night. (Gen. i. 14, 16. ſee alſo chap. ii. 10, 11, 13, 14. & aliis locis.)
To devotion, ſpeech, &c. for he willed the exiſtence of all created things. (ib. 25.)	
For the ſake of diſtinguiſhing actions, He made a total difference between right and wrong. (ib. 26.)	If thou doeſt well, ſhalt thou not be accepted? and if thou doeſt not well, ſin lieth at the door. (ib. iv. 7. ſee alſo chap. ii. 16, 17.)
—Having divided his own ſubſtance, the mighty Power became half male, half female. (ib. 32.)	God created man in his own image; in the image of God created he him; male and female created he them. (ib. i. 27.)

MENU.

He, whoſe powers are incomprehenſible, having created ..... this univerſe was again abſorbed in the Spirit, changing *the* time *of energy* for *the* time *of repoſe*. (ib. 56.)

MOSES.

Thus the heavens and the earth were finiſhed, and all the hoſt of them. And on the ſeventh day God ended his work;—and reſted on the ſeventh day from all his work. (ib. ii. 1, 2.)

Thus the accounts of MOSES and the Hindu Scriptures concerning the creation may be eaſily reconciled to each other. But it is not our intention to ſupport the Hindu writings in preference to the Hebrew Pentateuch; all we deſire is, that truth may be inveſtigated, and that error may be exploded. There are many perſons, no doubt, in the Eaſt better acquainted with the antiquity of the Sanſcrit books than we are, and by our intercourſe with the Bráhmens and learned Pundits, much may be done towards a right diſcovery of this important matter. The Hindus have, for many ages, looked upon their Scriptures as a revelation from the Supreme Being of his mind and will concerning the works of his creation. They bring forward the Deity declaring his own mind, and think they have an indubitable right to follow the precepts which his word, according to their ancient lawgivers, contains. MOSES too, in his Pentateuch, tells us that the Almighty ordered him to promulgate his law among the people, and to ſhew them the path in which they ſhould walk. The Jews, and after them the Chriſtians, have generally received MOSES's account as valid, and have conſequently followed its dictates with a religious zeal. Enthuſiaſm among every deſcription of people muſt certainly be deſpiſed, but zeal in contending for the truth is highly commendable in whomſoever it ſhall be found. Had the Hindu writings, diveſted of their fabulous paſſages, been diſſeminated in the Weſtern world with as much energy as the works of MOSES have been ſpread abroad, perhaps they would likewiſe have found many admirers and advocates.

Sir W. JONES, ſpeaking of the Laws of MENU, ſays, they contain abundance of curious matter extremely intereſting both to ſpeculative lawyers and antiquaries, with many beauties which need not be pointed out, and with many blemiſhes which cannot be juſtified or palliated. It is a ſyſtem of deſpotiſm and prieſtcraft, both indeed limited by law, but artfully conſpiring to give mutual ſupport, though with mutual checks; it is filled with ſtrange conceits in metaphyſics and natural philoſophy, with idle ſuperſtition, and with a ſcheme of theology moſt obſcurely figurative, and conſequently liable to dangerous miſconception; it abounds with minute and childiſh formalities, with ceremonies generally abſurd and ridiculous: the puniſhments are partial and fanciful; for ſome crimes, dreadfully cruel, for other reprehenſibly ſlight; and the very morals, though rigid enough on the whole, are in one or two inſtances (as in the caſe of light oaths and of pious perjury) unaccountably relaxed: nevertheleſs, a ſpirit of ſublime devotion, of benevolence to mankind, and of amiable tenderneſs to all ſentient creatures, pervades the whole work; the ſtyle of it has a certain auſtere majeſty, that

ſounds

ſounds like the language of legiſlation, and extorts a reſpectful awe; the ſentiments of independence on all beings but God, and the harſh admonitions, even to kings, are truly noble; and the many panegyrics on the *Gáyatri*, the *mother*, as it is called, of the *Véda*, prove the author to have *adored* (not the viſible material *ſun*, but) *that divine and incomparably greater light*, to uſe the words of the moſt venerable text in the Indian Scripture, *which illumines all, delights all, from which all proceed, to which all muſt return, and which can alone irradiate* (not our viſual organs merely, but our ſouls and) *our intellects*.

The writings of MOSES too, are not totally exempt from paſſages which, to the mere reaſon of humanity, carry with them the appearance of fiction or of cruelty. Thus the formation of woman by throwing ADAM into a deep ſleep, and taking a rib from his ſide, has long been matter of ridicule for the ſons of infidelity; as have many other parts of the Pentateuch. But whatever opinion may be entertained of MENU and his laws, it muſt be remembered that they are revered as the word of God by many millions of Hindus who compoſe ſeveral great nations, who are of vaſt importance to the political and commercial intereſts of Europe, whoſe well directed induſtry would add largely to the wealth of Great Britain, and who aſk no greater compenſation than protection for their perſons and property, juſtice in their temporal concerns, indulgence to their old religion, and the benefit of thoſe laws, which they hold ſacred, and which alone they can underſtand.

I.

HISTORICAL REMARKS ON THE COAST OF MALABAR. WITH SOME DESCRIPTION OF THE MANNERS OF ITS INHABITANTS.

By JONATHAN DUNCAN, Esq.

SECTION I. IN the book called *Kerul Oodputtee*, or, "The emerging of the Country of *Kerul*," (of which, during my ſtay at Calicut, in the year 1793, I made the beſt tranſlation into Engliſh in my power, through the medium of a verſion firſt rendered into Perſian, under my own inſpection, from the Malabaric copy procured from one of the Rajahs of the *Zamorin's* family,) the origin of that coaſt is aſcribed to the piety or penitence of *Pureſeu Rama*, or *Pureſram*, (one of the incarnations of VISHNU,) who, ſtung with remorſe for the blood he had ſo profuſely ſhed in overcoming the Rajahs of the *Khetry* tribe, applied to VARUNA, the God of the Ocean, to ſupply him with a tract of ground to beſtow on the *Brâhmens*; and VARUNA having accordingly withdrawn his waters from the *Gowkern* (a hill in the vicinity of Mangalore) to Cape Comorin, this ſtrip or territory, has, from its ſituation, as lying along the foot of the *Sukhien* (by the Europeans called the *Ghaut)* range of mountains, acquired the name of *Mulyalum*, (i. e. Skirting at the Bottom of the Hills,) a term that may have been ſhortened into *Maleyam*, or *Maleam*; whence are alſo probably its common names of *Mulievar* and *Malabar*; all which *Pureſram* is firmly believed, by its native Hindu inhabitants, to have parcelled out among different tribes of *Brâhmens*, and to have directed that the entire produce of the ſoil ſhould be appropriated to their maintenance, and towards the edification of temples, and for the ſupport of divine worſhip; whence it ſtill continues to be diſtinguiſhed in their writings by the term of *Kermbhoomy*, or, "The Land of Good Works for the Expiation of Sin."

II. The country thus obtained from the ſea *, is repreſented to have remained

* In a manuſcript account of Malabar that I have ſeen, and which is aſcribed to a Biſhop of Virapoli, (the ſeat of a famous Roman Catholic ſeminary near Cochin,) he obſerves, that by the accounts of the learned natives of that coaſt, it is little more than 2300 years ſince the ſea came up to the foot of the *Sukhien*, or Ghaut mountains; and that it once did ſo he thinks extremely probable from the nature of the ſoil, and the quantity of ſand, oyſter-ſhells, and other fragments, met with in making deep excavations.

long

long in a marſhy and ſcarcely habitable ſtate; inſomuch, that the firſt occupants, whom *Pureſram* is ſaid to have brought into it from the eaſtern, and even the northern, part of India, again abandoned it; being more eſpecially ſcared by the multitude of ſerpents with which the mud and ſlime of this newly emerged tract is related to have then abounded; and to which numerous accidents are aſcribed, until *Pureſram* taught the inhabitants to propitiate theſe animals, by introducing the worſhip of them and of their images, which became from that period objects of adoration.

III. The country of *Mulyalum* was, according to the *Kerul Oodputtee*, afterwards divided into the four following Tookrees, or diviſions:

1ſt. From Gowkern, already mentioned, to the Perumbura River, was called the *Tooroo*, or *Turu Rauje*.

2d. From the Perumbura to Poodumputtum was called the *Moſhek Rauje*.

3d. From Poodum, or Poodputtun, to the limits of Kunetui, was called the *Kerul* or *Keril Rauje*; and as the principal ſeat of the ancient government was fixed in this middle diviſion of Malabar, its name prevailed over, and was in courſe of time underſtood in a general ſenſe to comprehend the three others.

4th. From Kunety to Kunea Koomary, or Cape Comorin, was called the *Koop Rauje*; and theſe four grand diviſions were parcelled out into a greater number of *Naadhs*, (pronounced *Naars*, and meaning diſtricts or countries,) and of *Khunds*, or ſubdiviſions, under the latter denomination.

IV. The proportion of the produce of their lands, that the *Bráhmens* are ſtated to have originally aſſigned for the ſupport of government, amounted to only one ſixth ſhare: but in the ſame book of *Kerul Oodputtee* they are afterwards ſaid to have divided the country into three equal proportions; one of which was conſecrated to ſupply the expence attending religious worſhip, another for the ſupport of government, and the third for their own maintenance.

V. However this may be, according to the book above quoted, the *Bráhmens* appear to have firſt ſet up, and for ſome time maintained, a ſort of republican or ariſtocratical government, under two or three principal chiefs, elected to adminiſter the government, which was thus carried on (attended, however, with ſeveral intermediate modifications) till, on jealouſies ariſing among themſelves, the great body of the *Bráhmen* landholders had recourſe to foreign aſſiſtance, which terminated, either by conqueſt or convention, in their receiving to rule over them a *Permal*, or chief governor, from the Prince of the neighbouring country of *Chaldeſh*, (a part

(a part of the Southern Carnatic,) and this ſucceſſion of Viceroys was regularly changed and relieved every twelve years; till at length one of thoſe officers, named *Sheo Ram*, or (according to the *Malabar* book) *Shermanoo Permaloo*, and by others called *Cheruma Perumal*, appears to have rendered himſelf ſo popular during his government, that, (as ſeems the moſt probable deduction from the obſcure accounts of this tranſaction in the copy obtained of the *Kerul Oodputtee*, compared with other authorities,) at the expiration of its term, he was enabled, by the encouragement of thoſe over whom his delegated ſway had extended, to confirm his own authority, and to ſet at defiance that of his late ſovereign, the Prince or King of *Chaldeſh*, who is known in their books by the name of Rajah *Kiſhen Rao*; and who having ſent an army into Malabar with a view to recover his authority, is ſtated to have been ſucceſsfully withſtood by *Shermanoo* and the Malabarians; an event which is ſuppoſed to have happened about 1000 years anterior to the preſent period; and is otherwiſe worthy of notice, as being the epoch from which all the Rajahs and chief *Nayrs*, and the other titled and principal lords and landholders of Malabar, date their anceſtors' acquiſition of ſovereignty and rule in that country; all which the greater part of their preſent repreſentatives do uniformly aſſert to have been derived from the grants thus made by *Shermanoo Permaloo*, who, becoming after the defeat of *Kiſhen Rao's* army, either tired of his ſituation, or, from having (as is the vulgar belief) become a convert to Mahommedaniſm, and being thence deſirous to viſit Arabia, is reported to have made, before his departure, a general diviſion of Malabar among his dependents, the anceſtors of its preſent chieftains.

VI. The book entitled *Kerul Oodputtee* (which, however locally reſpected, is, at leaſt in the copy I procured of it, not a little confuſed and incoherent) mentions that, after this defeat of *Kiſhen Rao's* army, *Shunker*, a ſuppoſed ſon of *Mahadeo*, (the principal of the Hindu Gods,) regulated the caſts in Malabar, and reſtricted the various ſubdiviſions of the four general tribes to their particular duties, down to the loweſt orders of the fourth, conſiſting of the artificers, tillers of the ſoil, and inhabitants of the woods, whom he declared it unlawful for the other caſts to approach, inſomuch, that the bare meeting with them on the road entailed pollution, for which the party of the ſuperior caſt is required to bathe *.

VII. It

* Of the ſeveral caſts in Malabar, and their diſtinctions, I received the following ſummary account from the Rajah of Cartinad. 1. *Namboory Bráhmens.* 2. *Nayrs*, each of various denominations. 3. *Teer.* 4. *Malere.* 5. *Polere*, called (he

VII. It is the received tradition among the Malabars, that *Shermanoo Permaloo* was, juſt at the completion of the diſtribution of the Malabar country, applied to for ſome proviſions by an *Erary*, or perſon of the cow-herd caſt; who, with his brother, had, during the preceding warfare, come from their native town of Poondra (on the banks of the Cavery, near Errode) to his aſſiſtance, and had proved the principal cauſe of his ſucceſs againſt Rajah *Kiſhen Rao's* army, upon which *Shermanoo*, having little or nothing elſe left, made a grant to him of the very narrow limits of his own place of abode at Calicut; and having further beſtowed on him his own ſword and ancle chainlet, and other inſignia of dignity, and preſented him with water and flowers, (which appears to have been uniformly the ancient ſymbol of donation and transfer of property in this part of India,) he authoriſed and inſtructed him to extend his own dominions by arms, over as much of the country as he ſhould find deſirable; a diſcretion which this adventurer (who is the anceſtor of the preſent *Samoory* or *Zamorin*) immediately began to act upon, and to endeavour to carry its object into execution, by the forcible acquiſition of the diſtricts adjoining to the preſent city of Calicut; and ever ſince his family appear to have, in the true ſpirit of their original grant, (which is the boaſt

(he ſays) *Ders* in Hindoſtan. The *Teers* are cultivators of the ground, but freemen. The *Maleres* are muſicians and conjurers, and alſo freemen. The *Poleres*, or *Poliars*, are bondſmen, attached to the ſoil in the lower part of Malabar, in like manner as are the *Puniers* above the Ghauts. The proper name of the Ghaut hills is, the Rajah adds, *Sukhien Purbut*, or hills of *Sukhien*, with the guttural *Kh* pronounced as ڂ

N. B. *Pouliats* and *Poulichis*, mentioned by RAYNAL, are only the one the male, and the other the female, of *Polere* aforeſaid. The ſyſtem of obſervations in regard to diſtance to be obſerved by the ſeveral caſts in Malabar, are (according to the Rajah of Cartinad's explanation) as under ſpecified.

1. A *Nayr* may approach, but muſt not touch, a *Namboory Bráhmen*.

A *Teer* is to remain thirty-ſix ſteps off from one.

A *Malere* three or four ſteps further.

A *Polere* ninety-ſix ſteps.

2. A *Teer* is to remain twelve ſteps diſtant from a *Nayr*.

A *Malere* three or four ſteps further.

A *Polere* ninety-ſix ſteps.

3. A *Malere* may approach, but is not to touch, the *Teer*.

4. A *Polere* is not to come near even to a *Malere*, or any other caſt but a *Mapilla*, the name given to the Mahommedans, who are natives of Malabar. If a *Polere* wiſhes to ſpeak to a *Bráhmen*, or *Nayr*, or *Teer*, or *Malere*, he muſt ſtand at the above preſcribed diſtance and cry aloud to them.

If a *Polere* touch a *Bráhmen*, the latter muſt make expiation by immediately bathing, and reading much of the divine books, and changing his *Bráhmenical* thread. If a *Polere* touch a *Nayr*, he is only to bathe, and ſo of the other caſts.

and

and glory of its preſent repreſentatives,) been either meditating new conqueſts, or endeavouring to maintain the acquiſitions they have thus atchieved by *Sheo Ram*, or *Shermanoo Permaloo's* ſword; which they aſſert to have ſtill preſerved as a precious relick, and to have converted into an object of domeſtic adoration, as the inſtrument of all the greatneſs of their houſe.

VIII. Anterior even to this epoch of the partition of Malabar, the *Neſtorians* had ſettled and planted *Chriſtianity* on this coaſt; and with thoſe of the Roman Catholic communion, that arrived ſeveral centuries after, in conſequence of *Vaſco de Gama's* diſcovery, they continue to conſtitute to this day a conſiderable body of the lower orders of the preſent ſociety in *Travancore* and *Cochin*; in which laſt diſtrict there live alſo the moſt conſiderable, or rather, perhaps, the only colony of *Jews* in India.

IX. Of the events that took place from the partition till the above mentioned diſcovery of Malabar by the *Portugueſe* in 1496, I am not poſſeſſed of adequate materials to afford any full or ſufficiently ſatisfactory detail; but the principal may, as far as relates to its interior adminiſtration, be probably comprized in the wars carried on during this long period by the *Samoory* or *Zamorin* family for its aggrandizement; and in the conſequent ſtruggles kept up by the others, and eſpecially the middle and ſouthern principalities, to maintain their independence; for as to attacks from without, I have not been able to trace that they experienced any material ones during this long interval, or that the Prince of Chaldeſh was ever able to reeſtabliſh his dominion over this ſouthern part of the coaſt, within the limits aſſigned by the natives to Malabar Proper, or the tract by them denominated *Mulyalum*, or *Maleyam*.

X. During this period alſo the Mahommedan religion made great progreſs in Malabar, as well from the zeal of its more early proſelytes in converting the natives, as in purchaſing or procuring the children of the poorer claſſes, and bringing them up in that faith: and theſe Arabian traders, bringing annually ſums of money to the Malabar coaſt, for the pepper and other ſpices that they carried from it for the ſupply of all the reſt of the world, received every encouragement, and the fulleſt protection for their property and religion, from the ſucceſſive *Samoories*, or *Zamorins*, whence they naturally grew into the habit of rendering that part of the coaſt the centre of their traffic and reſidence; and ſo rivetted had, through theſe long habits of intercourſe, become the connexion between them and the *Samoory's* government, that the latter continued, after the arrival of the *Portugueſe*,

moſt pertinaciouſly to adhere to, and ſupport, them againſt theſe new rivals in the gainful commerce which they had hitherto driven; a predilection that as naturally lead the Rajahs of *Cochin*, and of other petty ſtates, that ſtood always in fear of the ambition and ſuperior power of the *Samoories*, to afford to the *Portugueſe* a kind reception in their ports; from which colliſions of intereſts a very cruel warfare, by ſea and land, was for many years carried on between the *Samoories*, or *Zamorins*, and their ſubjects, Hindus and Mahommedans, aided occaſionally by the Egyptians and Turks, on the one part, and the *Portugueſe*, with the *Cochin* and other Rajahs as their allies, on the other; of the various ſucceſſes and reverſes in which, the only *Aſiatick* relation I have met with, is contained in a work, with which, during my ſtay in Malabar, I was obligingly favoured by my then colleague, Major (now Lieutenant-Colonel) Dow, who had traced and obtained it in the courſe of the extenſive intercourſe that, on terms the moſt amicable, and in views the moſt ſalutary and benign, he had long cultivated with the Mahommedan part of the Malabar community. This book, written in the Arabick language, is ſaid to have been compoſed by ZEIRREDDIEN MUKHDOM, an Arab, Egyptian, or ſubject of the Turkiſh empire; who is thought to have been one of thoſe diſpatched to aſſiſt the Mahommedan Princes of India, and the *Zamorin*, againſt the Portugueſe; and to have, during his ſtay in India, compoſed this hiſtorical account (which I have tranſlated into *Engliſh*) of the warfare in which he bore a part, preceded by (what by many will be conſidered as the moſt intereſting part of his work) a deſcription of the manners and cuſtoms of the natives of *Malabar* at the period of his viſit to it more than two centuries ago; relative to both which articles, I ſhall here inſert ſome of the information acquired by this Mahommedan author, whoſe relation terminates with the year 987 of the Hejira, anſwering to the year of our Lord 1579-80.

XI. This author begins with nearly the ſame account of the converſion of *Shermanoo Permaloo* (whoſe real or proper name, or rather the epithet beſtowed on his ſtation, this muſſulman mentions to have been *Shukerwutty*, or *Chuckerwutty*) as has been already noticed from the *Kerul Oodputtee*, with this addition, that it was effected by a company of Derviſes from Arabia, who, touching at Crungloor, or Cranganore, (then the ſeat of government in Malabar,) on their voyage to viſit the *Footſtep of Adam* *, on that mountain in *Ceylon* which mariners diſtinguiſh by the

* This Footſtep of Adam is, under the name of *Sreepud*, or the "Holy Foot," equally reverenced and reſorted to by

the name of *Adam's Peak*; and theſe pilgrims imparting, on that occaſion, to the *Permal*, or *Permaloo*, the then recent miracle of *Mahommed's* having *divided the Moon*, the Viceroy was ſo affected by this inſtance of ſupernatural power, and ſo captivated by the fervid repreſentation of theſe enthuſiaſts, that he determined to abandon all for the ſake of proceeding with them into Arabia, to have an opportunity of converſing with the Prophet, who was ſtill alive, and had not even then fled from Mecca; for after ſojourning ſome time with the Prophet in Arabia, *Chuckerwutty* (whom *Mahommed* had dignified with the title of *Sultaun Tauje ul Herid)* is mentioned in ZEIRREDDIEN's book to have died on his return, on the firſt day of the firſt year of the Hejira, anſwering to the 16th of July, of the year of our Lord 622, after, however, addreſſing recommendatory letters to the chiefs in Malabar in favour of ſundry of his Muſſulman brethren, who were thereby enabled to conſtruct the firſt moſque or temple of their new faith in that country as early as the 21ſt year of the Hejira, or A. D. 642.

XII. But although ZEIRREDDIEN (the author I am now quoting) deemed it fit to allow a place in his work to the traditions that he found thus locally to obtain, he fairly avows his own diſbelief in them; more eſpecially as to what relates to the ſuppoſed converſion of *Shermanoo Permaloo* *, and his journey to viſit the Prophet in Arabia; ſubjoining alſo his own opinion, that the Muſſulman religion did not acquire any footing, either permanent or extenſive, in *Malabar* till towards the latter end of the ſecond century of the *Mahommedan* æra.

XIII. ZEIRREDDIEN next enters into ſome deſcription of the exiſting manners of the Malabarians as he found them; after premiſing that the Malabar country was then divided into a number of more or leſs extenſive independencies; in which

by the *Hindus*, as appears by the relation of a journey made to viſit it by a *Fakeer* of this laſt mentioned perſuaſion, called PRAUN POORY, now living at *Benares*, who has alſo travelled as far north as to *Moſcow*; and has from memory (ſince he is diſabled from writing, by being of the tribe of *Oordhbahu*, or whoſe arms and hands remain conſtantly in a fixed poſition above their heads) afforded me an opportunity of cauſing to be committed to writing, an intereſting account of his various travels throughout India, as well as into other parts of *Aſia*; and on the ſubject of theſe *Hindu Fakeers'* propenſity to travelling, I may here add, that I ſaw a few months ago at Benares, one of them who had travelled as far as Pekin, which he deſcribed under the name of *Pechin*; and had paſſes from the Chineſe government in his poſſeſſion. He mentioned the name of a temple of Hindu adoration as being ſituated in *Pekin*.

* From this improbability, joined to the unlikely accounts delivered by the Hindus themſelves, as to the departure of their chief governor, it may not perhaps be deemed too uncharitable, to ſuſpect that *Shermanoo* diſappeared like *Romulus* in a ſtorm, as being, perhaps, found inconvenient to the new ſituation of independence that the Malabar Princes admit to have, on this occaſion, either aſſumed, or been promoted to.

there

there were chieftains, commanding from one to two and three hundred, and up to a thouſand, and to five, ten, and thirty thouſand; and even (which is perhaps an undue amplification) to a lack of men, and upwards; and deſcribing that in ſome of theſe countries there were at the ſame time two *Hakims*, or rulers; in others three, and in ſome even more; having diſtinct bodies of men attached to them reſpectively; whence hatred and warfare were, he obſerves, ſometimes generated between them, which never, however, terminated in any entire ſeparation between the parties; and adding, that at that time the three greateſt powers were the *Colaſtrian* Rajah to the north, the *Samoory* or *Zamorin* in the centre; and farther ſouth a Prince who ruled from the town of Kolum, or Coulim, to Cape Comorin, comprehending the ſtates now held by the Rajah of Travancore.

XIV. The author next proceeds to an enumeration of what he conſidered as the chief peculiarities in the manners of the Malabarians, from which I ſhall literally tranſcribe, into the body of this narrative, the following particulars from the tranſlation of ZEIRREDDIEN's original work; ſubjoining in notes ſuch particulars as my own enquiries, or other information, may tend to corroborate, define, or illuſtrate, in reſpect to ſome of the circumſtances he has related.

1ſt. "If their ruler be ſlain in war, his army become quite deſperate, and will "ſo violently attack and preſs upon their ſaid deceaſed ruler's enemy, and upon "the troops of the latter, and ſo obſtinately perſevere in forcing their way into "his country, and to ruin it, that either they will completely in this way affect "their revenge, or continue their efforts till none of them ſurvive; and therefore "the killing of a ruler is greatly dreaded, and never commanded; and this is a "very ancient cuſtom of theirs, which in modern times has, however, fallen with "the majority in diſuetude.

2d. "The rulers of Malabar are of two claſſes or parties, one of which acts in "ſupport of the *Samoory* Rajah, whilſt the other party acts in concert with the "*Hakim* of *Cochin*; which is the general ſyſtem, and only deviated from occaſion-"ally from particular cauſes; but as ſoon as theſe ceaſe to operate, the party na-"turally returns again to the ancient uſage. Theſe leaders are never guilty of "backwardneſs or failure in war, but will fix a day to fight on, and punctually "adhere thereto; nor will they commit treachery in the conduct of it.

3d. "On the death of any principal or ſuperior perſon among them, ſuch as fa-"ther, mother, and elder brother, in the caſt of *Bráhmens*, (whilſt among carpen-"ters, and the lower caſts, the ſuperiors and principal perſons are the mother and

"mother's

" mother's brother, or one's own elder brother, as among the *Nayrs,)* when any " one dies of the deſcription of a ſuperior, as above mentioned, his ſurviving rela- " tive is to remain apart for a twelvemonth; during which time he is not to co- " habit with his wife, or to eat the fleſh of animals, or to chew the beetle leaf, or " cut the hair of his head, or his nails: nor can any deviation be admitted from " this practice, which is reckoned for the good of the defunct.

4th. " It is certain that among the body of *Nayrs*, and their relatives, the " right of ſucceſſion and inheritance veſts in the brother of the mother, or goes " otherwiſe to the ſiſter's ſon, or to ſome of the maternal relations; for the ſon is " not to obtain the property, country, or ſucceſſion of the father; which cuſtom " hath for a long time prevailed; and I (the author) ſay, that among the *Moſlems* " of *Cannanore* they do not bequeath or give their heritage to their ſons, which is " alſo the rule with the inhabitants in that vicinity, notwithſtanding that theſe " ſaid perſons, who do thus exclude their ſons, be well read in the *Koran*, and have " imbibed its precepts, and are men of ſtudy and piety *. However, among the " *Bráhmens*, goldſmiths, carpenters, and iron-ſmiths, and *Teers*, or lower orders of " huſbandmen, and fiſhermen, &c. the ſon does ſucceed to the rights and property " of the father; and marriage is practiſed among theſe caſts.

5th. " But the *Nayrs* practiſe not marriage, except as far as may be implied from " their tying a thread round the neck of the woman at the firſt occaſion; where- " fore the acts and practical maxims of this ſect are ſuited to their condition, and " they look upon the exiſtence or non-exiſtence of the matrimonial contract as " equally indifferent.

6th. " Among the *Bráhmens*, where there are more brothers than one, only " their elder, or the oldeſt of all of them, will marry, provided he have had, or be " likely to have, male iſſue; but theſe brothers who thus maintain celibacy, do " nevertheleſs cohabit with *Nayr* women, without marriage, in the way of the " *Nayrs*; and if, through ſuch intercourſe, a ſon ſhould be born, they will not " make ſuch child their heir. But when it becomes known that the elder mar- " ried brother (in a family of *Bráhmens*) will not have a ſon, then another of the " brothers enters into the ſtate of matrimony.

* I have, however, reaſon to believe, that this rule and cuſtom is now wearing out among the *Mapillas*, or Malabar Mahommedans; continuing, however, to be ſtill more particularly obſerved at Cannanore and Tellicherry: but, even in this laſt mentioned place, I was informed by KARIAT MOOSA, a principal merchant of this ſect, that it is evaded by fathers dividing among their ſons much of their property during their life-time.

7th.

7th. "Among the *Nayrs* it is the cuſtom for one *Nayr* woman to have attached "to her two males, or four, or perhaps more*; and among theſe a diſtribution "of time is made ſo as to afford to each one night, in like manner as a ſimilar "diſtribution of time is made among the true believers of Malabar for cohabiting "with their wives; and it but rarely happens that enmity and jealouſy break "out among them on this account.

8th. "The lower caſts, ſuch as carpenters, iron-ſmiths, and others, have fallen "into the imitation of their ſuperiors, the *Nayrs*, with this difference, however, "that the joint concern in a female is, among theſe laſt, limited to the brethren "and male relations by blood †, to the end that no alienation may take place in "the courſe of the ſucceſſion and the right of inheritance.

9th. "Among the *Nayrs* the whole body is kept uncovered, except a little "about the middle. They make no difference in male or female attire; and "among their kings and lords, none of them think of ſhrouding their women from "the ſight of all mankind; though among the *Brâhmens* this modeſty and deco-"rum are attended to.

10th. "Among the *Nayrs*, they dreſs out and adorn their women with jewels "and fine apparel, and bring them out into large companies, to have them ſeen "and admired by all the world.

* This deſcription ought, I believe, to be underſtood of the *Nayrs* inhabiting the more ſouthern parts of Malabar, from the Toorecherie, or Cotta river, to Cape Comorin; for to the northward of the ſaid river the *Nayr* women are ſaid to be prohibited from having more than one male connection at a time; for failure in which ſhe is liable to chaſtiſement; without, however, incurring loſs of caſt, unleſs the paramour be of a lower tribe than her own.

† "Alone in lewdneſs, riotous and free,
"No ſpouſal rights withhold, and no degree;
"In unendear'd embraces free they blend,
"Yet but the huſband's kindred may aſcend,
"The nuptial couch. Alas! too bleſt, they know
"Nor jealouſy's ſuſpenſe, nor burning woe;
"The bitter drops which oft from dear affection flow." MICKLE's CAMOENS, Book vii.

This cuſtom prevails among the five low caſts of *Teer*; of *Agaree*, or carpenters; *Muzalie*, or braſs-founders; *Tattam*, or gold-ſmiths; and *Kollen Perimcollen*, or black-ſmiths; who live promiſcuouſly with one or more women: and ſometimes two, three, four, or more brothers cohabit with one woman. The child, or children, who are the offſpring of this connection, inherit the property of the whole fraternity; and whenever the female of the houſe is engaged with either of the brethren, his knife is ſaid to be hung up at the door of the apartment as a ſignal of its being occupied. It is, however, but juſtice to add, that this cuſtom is ſaid to be local, and practiſed only in a few of the ſouthern diſtricts; and even among theſe five caſts there is no prohibition againſt any man's keeping for himſelf, either one or as many women as he can maintain.

11th.

11th. "Among the *Malabars*, priority in age ſtamps ſuperiority and rule, "were the difference only of a moment; and, notwithſtanding that ſuch party "may be a fool, or blind, or aged, or otherwiſe, the rulerſhip devolves to the "ſiſter's children; nor has it ever been heard that any one put to death his elder "with a view of ſooner attaining to dominion *.

12th. "In caſe the line of deſcent and ſucceſſion become extinct among them, "or be in danger of becoming ſo, they do then bring an alien, (whether an adult "or minor,) and him they conſtitute the inheritor, as the ſubſtitute for a ſon, or "for a brother, or for a ſiſter's ſon; nor will any future difference be made be-"tween ſuch adopted and a real heir; which cuſtom is current and obſerved "among all the infidels of Malabar, whether Rajahs or Shopkeepers, from the "higheſt to the loweſt; ſo that the line of deſcent becomes not extinct †.

13th. "They have, moreover, ſubjected themſelves to a multitude of incon-"veniencies, or difficult obſervances, which they do, nevertheleſs, ſtedfaſtly ad-"here to; as, for inſtance, they have arranged and limited the fitneſs of things "as reſpectively applicable to the higher, middle, and lower ranks, in ſuch man-"ner, that if a perſon of the higher, and one of the lower, happen to meet, or "rather to approach each other, the proper diſtance to be obſerved between them "is known and defined; and if this diſtance be encroached upon, he of the higher "caſt muſt bathe; nor can he lawfully touch food before undergoing this purifi-"cation; or if he do, he falls from his dignity, to which he cannot be raiſed "again; nor has he any other reſource than to betake himſelf to flight, and, for-"ſaking his abode, to proceed where his ſituation is unknown; and ſhould he not "thus flee, the ruler of the country is to apprehend him, and ſhall ſell him to "ſome mean perſon, ſhould even the party incurring this diſgrace be a child or a "woman; or otherwiſe he may reſort to the *Moſlems*, and poſſeſs the *Iſlam* ‡, or "elſe become a *Jogui*, or a *Fringy*, i. e. a *Chriſtian*.

14th.

* Thus in the *Zamorins'* families, and in that of the Rajahs of *Paulghaut*, there are from fifty to an hundred or more males of the ſame blood, i. e. deſcended from females of the Rajah's family, who are all entitled to, and do accordingly riſe to, the chief rule, agreeably to their ſeniority in point of birth, without any other right or title of precedence.

† This is in general true: but there lately occurred an inſtance to the contrary, whereby the *Rauje* or Lordſhip of *Vittulnaad* has eſcheated to the Company. With reſpect to the proviſion occaſionally made againſt ſuch extinctions of families, it is very true that the Rajahs make it a practice, in caſe of any impending danger of this kind, to procure ſome males and females (though of the latter more than of the former) to keep up the regal line.

‡ This is one of the reaſons aſſigned to me by a Rajah of the *Zamorin* family, for the number of *Mapilla Muſſulmans* being

14th. " In like manner it is prohibited for thoſe of a lower degree to dreſs " food for a higher; and if any one partake of ſuch a meal, he muſt fall from his " rank.

15th. " Thoſe who are entitled to wear the *Zunaar*, or *Bráhmenical* thread, are " ſuperior to, and more noble than, all the claſſes of the *Infidels* of Malabar; and " among theſe *Zunaar* wearers there are alſo the higher, middle, and lower. Of " the firſt are the *Bráhmens*, who are above all others the moſt reſpectable; and " theſe alſo have among themſelves the ſame diſtinctions of firſt, ſecond, and third " degrees.

16th. " The *Nayrs* of *Malabar* follow the martial profeſſion *, and exceed both " in numbers and dignity, having ſundry degrees among themſelves; and inferior " to them in caſt are the *Teers*, whoſe practice it is to climb up the cocoa-nut " trees, and to bring down the fruit, and to extract the intoxicating juice thereof, " called *toddy*; and below theſe *Teers* are the carpenters, ſmiths, goldſmiths, fiſher- " men, &c. and under theſe again, in reſpect of degree, are the *Poleres*, or *Poliars*, " (i. e. ploughmen,) and thoſe of other baſe caſts, engaged in the manual part " of huſbandry; and among whom alſo are other ſubordinate degrees of diſtinc- " tion †.

being now greater in the *Calicut* diſtricts than the *Hindus* and *Nayrs*; namely, the nicety of their obſervances, and facility of loſing caſt; which drives the parties, from neceſſity, into the pale of *Iſlamiſm*. The ſame Rajah mentioned, on this occaſion, the cuſtom of the *Namboory Bráhmens*, who thus diſpoſed of their own women, without incurring any diſparagement of caſt, to the *Mapillas*; which rule holds alſo good in reſpect to other females, as intimated in the firſt note page 818, and in the ſequel of ZEIRREDDIEN's text.

* Poliar the labouring lower clans are named;
By the proud *Nayrs* the noble rank is claimed;
The toils of culture and of art they ſcorn:
The ſhining faulchion brandiſh'd in the right,
Their left arm wields the target in the fight. CAMOENS, Book vii.

Theſe lines, and eſpecially the two laſt, contain a good deſcription of a *Nayr*, who walks along, holding up his naked ſword with the ſame kind of unconcern, as travellers in other countries carry in their hands a cane or walking-ſtaff. I have obſerved others of them have it faſtened to their back, the hilt being ſtuck in their waiſtband, and the blade riſing up, and glittering between the ſhoulders. It muſt not, however, be inferred, that all the *Nayrs* betake themſelves, at preſent, to the martial profeſſion; for, according to the information collected for me with much care on the cuſtoms of that country by the late Lieutenant MAC LEAN (who was *Malabar tranſlator* to the commiſſion of which I was a member), there are ſuppoſed to be thirty diſtinct claſſes of this general tribe; many of whom do now apply to the peaceable arts of huſbandry, penmanſhip and account, weaving, carpenter's work, pottery, oil making, and the like; though formerly they are all ſaid to have been liable to be called upon by their reſpective ſovereigns to perform military ſervice.

† For a farther account of theſe caſts, ſee note page 811, and ſecond note page 818.

17th.

17th. "If a ſtone light from a *Polere* on a woman of a ſuperior rank on a parti-
" cular night, which is marked out for this in the year, then that woman muſt be
" excluded from her rank; and although ſhe ſhall not have ſeen the ſaid man, nor
" been touched by him, yet ſtill her lord ſhall make a conveyance of her by ſale;
" or ſhe ſhall become a *Moſlem*, or a *Chriſtian*, or a female *Jogui*; and this cuſtom
" is general *.

18. " In caſes of fornication (or what is locally deemed the illicit intercourſe
" between the ſexes), if the parties differ much in degree, the higher loſes his or
" her rank; nor has he or ſhe any other reſource than the one above-mentioned:
" yet, if a *Bráhmen* fornicate with a *Nayr* woman, he ſhall not thereby loſe his
" caſt; there being between thoſe two old tribes that anciently eſtabliſhed connec-
" tion which hath been already noticed."

19th. " Such are the painful obſervances which they have entailed on them-
" ſelves, through their own ignorance and want of knowledge, which God Al-
" mighty hath, however, in his mercy, rendered the means of encreaſing the
" number of the faithful †."

XV. Our *Mahommedan* author then proceeds to mention, that the towns built along the coaſt of *Malabar* owed their origin to, and were principally conſtructed by, the Mahommedan traders ‡, who, though not then amounting to a tithe of the general population, were much courted by the ſeveral Rajahs, and more eſpecially by the *Zamorin*, to frequent his port of Calicut, on account of the duty of ten per cent. that was levied on their trade.

XVI. The arrival of the fleets of the Portugueſe, the firſt under *Vaſco de Gama*, in the 904th year of the Higeree, (correſponding with the year of our Lord 1498,) and of that conducted by *Cabral*, a few years thereafter, with the negociations, jealouſies, and wars that enſued thereon, are next related by our author, in a manner eaſily enough reconcileable to the accounts of the ſame tranſactions already publiſhed throughout Europe. He aſcribes the Europeans reſorting to India, to

* I have allowed this paragraph of ZEIRREDDIEN'S text to ſtand inſerted in the order of his own enumeration, becauſe it is connected with the one that follows; though the cuſtom it refers to ſeems ſo unreaſonable, that, as I never had occaſion to hear it corroborated by the report of the natives, I cannot vouch for its being well founded.

† In the manner adverted to in the ſecond note page 819. And here cloſes, for the preſent, the literal extract I have made from ZEIRREDDIEN'S performance, which, for diſtinction ſake, I have marked with inverted commas.

‡ The principally current Malabar æra is ſtated in the account aſcribed to the Biſhop of Verapoli (as already quoted in the note page 809) to have been fixed from the building of the city of *Coulum*, (by us called Quiloan,) about twenty-four *cadums* (Malabar leagues) or eighty Britiſh miles, ſouth of Cochin. * It was formerly very famous as the emporium of the coaſt, and founded in the 825th year of the Chriſtian æra.

their deſire to purchaſe pepper and ginger. Nor does he ſeek to conceal that, between them and the Mahommedan traders, a commercial jealouſy immediately ſprang up, which proved the cauſe of all the bitter wars that were afterwards carried on, by ſea and land, by the *Zamorins* and *Mahommedans* on the one part; and the Rajah of *Cochin* (to whoſe port the Portugueſe had ſailed, on their breach with the former Prince) and his *European* allies on the other; the former being afterwards reinforced from the Arabian Gulph by a large fleet fitted out under the command of *Ameer Hoſaine*, an officer in the ſervice of *Kaunis al Ghowry*, the then reigning Sultaun of Egypt; but theſe armaments failed of their object; and the *Ghowry* Prince was ſoon afterwards himſelf ſubdued by *Selim*, the Turkiſh Emperor: and of the treatment which the Mahommedan traders continued, in the mean time, to experience from the *Portugueſe*, the follow deſcription is literally taken from the tranſlation of NIZAMEDDIEN's Treatiſe.

1ſt. "The believers of Malabar were eſtabliſhed in the moſt deſirable and "happy manner, by reaſon of the inconſiderable degree of oppreſſion experienced "from the rulers, who were acquainted with the ancient cuſtoms, and were kind "to, and protectors of, the Muſſulmans; and the ſubjects lived ſatisfied and con-"tented; but ſinned ſo, that God turned from them, and did therefore command the "Europeans of Portugal, who oppreſſed and diſtreſſed the Mahommedan commu-"nity by the commiſſion of unlimited enormities, ſuch as beating and deriding "them; and ſinking and ſtranding their ſhips; and ſpitting in their faces, and on "their bodies; and prohibiting them from performing voyages, particularly that "to *Mecca*; and plundering their property, and burning their countries and tem-"ples; and making prizes of their ſhips; and kicking and trampling on their (the "believers) books, and throwing them into the flames. They alſo endeavoured "to make converts to their own religion; and enjoined churches of their own faith "to be conſecrated; tempting people, for theſe objects, with offers of money: "and they dreſſed out their own women in the fineſt ornaments and apparel, in "order thereby to deceive and allure the women of the believers. They did alſo "put *Haji's*, and other Muſſulmans, to a variety of cruel deaths; and they reviled "and abuſed with unworthy epithets the Prophet of God; and confined the Ma-"hommedans, and loaded them with heavy irons, carrying them about to ſale, "from ſhop to ſhop, as ſlaves; enhancing their ill uſage on theſe occaſions, in "order to extort the larger ſum for their releaſe. They confined them alſo in "dark, noiſome and hedious dungeons; and uſed to beat them with ſlippers; tor-

"turing

" turing them alſo with fire; and ſelling ſome into, and retaining others, in " their ſervitude as their ſlaves. On ſome they impoſed the ſevereſt taſks, with- " out admitting of the ſmalleſt relief or exemption. Others they tranſported into " Guzerat, and into the Concan, and towards Arabia, being places which they " themſelves uſed to frequent, in the view either of ſettling or ſojourning therein, " or of capturing veſſels. In this way they accumulated great wealth and property, " making captives alſo of women of rank, whom they kept in their houſes till Eu- " ropean iſſue was procured from them. Theſe *Portugueſe* did in this manner alſo " ſeize on many *Seyyuds*, learned and principal men, whom they retained in confine- " ment till they put them to death; thus prejudicing and diſtreſſing the Muſſulmans " in a thouſand ways; ſo as that I have not a tongue to tell or deſcribe all the miſ- " chiefs and mortifications attendant on ſuch a ſcene of evil.

2d. " After this they exerted their utmoſt efforts (which they had, indeed, " from firſt to laſt) to bring the Muſſulmans within the pale of their religion; " and they made at length peace with them for a conſideration to be paid to them " of ten in the hundred.

3d. " The Mahommedans reſiding principally on the ſea coaſts, it was cuſto- " mary for the newly arrived *Europeans* (who uſed to reſort annually to India at " the appointed ſeaſons) deridingly to aſk the perſons ſettled of their nation at the " ſea-ports, whether, and why, they (theſe ſettled *Portugueſe*) had not yet done " away the appearance of theſe people the *Muſſulmans?* reviling thereon their " own chiefs for not aboliſhing the Mahommedan religion; in the proſecution of " which view the heads of the Portugueſe deſired the *Hakim* of *Cochin* to expel " the *Muſſulmans* from his city, promiſing thereon to prove themſelves the means " of his reaping double the profit which accrued to him from their traffick; but " the *Hakim* of *Cochin* anſwered, ' Theſe are my ſubjects from days of old; and " it is they who have erected my city; ſo that it is not poſſible for me to expel " them.' "

XVII. The war thus continued till the *Portugueſe*, who had been originally permitted to conſtruct forts at Cochin and Cannanore, obliged the *Zamorin* to admit of their erecting one alſo at Calicut.

XVIII. They had alſo made themſelves maſters of Goa from the *Adel Sahi* dynaſty of the *Bejapoor* Kings in *Decan*; nor could any of the ſhips of the Mahommedans ſail in ſafety to either gulph, without being furniſhed with *Chriſtian paſſes*.

XIX.

XIX. In the *Hejira* year 931, anſwering to A.D. 1524-5, the Mahommedans appear by ZEIRREDDIEN's narrative, to have (countenanced, no doubt, and probably actively aſſiſted by their friend the *Zamorin*) been engaged in a barbarous war, or attack, on the *Jews* of *Cranganore*, many of whom our author acknowledges their having put to death without mercy; burning and deſtroying, at the ſame time, their houſes and ſynagogues, from which devaſtation they returned, and enabled their great protector, the *Zamorin*, to expel, in the courſe of the following year, the *Portugueſe* from *Calicut*.

XX. But the latter ſhortly afterwards re-eſtabliſhed themſelves in the vicinity of that capital, and were even permitted to build a fort within a few miles of it, at a place called *Shaliaut*, of which they are related to have retained poſſeſſion for upwards of thirty years, and till in or about the year 1571, they were, after a long ſiege, compelled to capitulate; whereupon the *Zamorin* is ſtated by NIZAMEDDIEN to have ſo completely demoliſhed their fortreſs, as not to leave one ſtone of it ſtanding on another.

XXI. The *Portugueſe* proved, however, more permanently ſucceſsful in an acquiſition they made in the province or (at that time) kingdom of *Guzerat*; where, according to my author, they, in the year 943, or A.D. 1536-7, obtained from *Behader Shah*, its monarch, (whom they are charged by ZEIRREDDIEN with having afterwards ſlain,) the ceſſion of the fortreſs of Diu, of which they ſtill retain poſſeſſion.

XXII. The author, ZEIRREDDIEN, places within the following year the Portugueſe building a fort at Cranganore, and their ſucceſsful reſiſtance at Diu, to an expedition fitted out againſt them from Egypt, by command of the Ottoman Emperor *Solyman*, whoſe baſha, or commander, is repreſented to have retired in a diſcreditable manner from the conteſt.

XXIII. This author places ſubſequent to the Hejira year 963, A.D. 1556, a difference that enſued between the Portugueſe and *Ali Rajah* *, the Mahommedan chief of Cannanore; and to whom belonged alſo the Laccadivian Iſlands, which on this occaſion, ZEIRREDDIEN charges the Chriſtians with having barbarouſly ravaged; and towards the cloſe of his hiſtorical detail, he inſerts the following notice

* The head of this principality of Cannanore (of which a female, known by the name of the *Beeby*, is the preſent repreſentative) is alſo called *Ali Rajah*, which, in the Malabar tongue, may be interpreted "Lord of the Sea;" a diſtinction affected (as I have heard) from this family's having long poſſeſſed the Laccadives, whence they have occaſionally invaded the Maldives; the *Badſha*, or monarch, of which is ſaid to be to this day jealous of them on that account.

of

of the reſult of the long and bloody competition between them and the Mahommedans for the trade of the eaſt.

1ſt. " It pleaſing the Almighty to try the fidelity of his ſervants, he gave ſcope " to the Portugueſe, and beſtowed on them the maſtery of a number of ſea-ports; " ſuch as thoſe in Malabar, and in Guzerat, and in Concan, &c. and they became " rulers in all the towns and cities, and ſwarmed therein, and reared fortreſſes in Hur- " muz, (Ormus,) Saket, Diu, Mehel, and in Sumatra, and at Malacca, and Milkoop; " and at Mylatoor, and Nagputtun, and Ajuram, and in the ports of Shoulmun- " dul, (Coromandel,) with many alſo in thoſe of Ceylon. They navigated alſo as " far as China; and their commerce extended throughout all theſe and other ports; " and the Mahommedan merchants ſunk under their ſuperior influence, and be- " came obedient to them and their ſervants; having no longer any power to " trade themſelves, unleſs in ſuch articles as the Portugueſe did not much like to " deal in: nor requires it to be ſuggeſted, that their choice fell upon thoſe com- " modities that yielded the largeſt profit; all which they excluſively reſerved, " without allowing any one elſe to trade therein."

XXIV. The traveller, CÆSAR FREDERICKE, having been on the Malabar coaſt about the time that ZEIRREDDIEN's hiſtory cloſes, it may tend to contraſt the preceding ſtate of facts according to our *Mahommedan* author's view of them, to ſubjoin his *Chriſtian* cotemporary's account of ſome of the ſame circumſtances.

XXV. Treating of Barcelore, a town on the northern part of the Malabar coaſt, FREDERICKE continues, (in the words of his old Engliſh tranſlator,) " and from " thence you ſhall go to a city called Cannanore, which is a harquebuſh-ſhot " diſtant from the chiefeſt city that the King of Cannanore hath in his kingdom, " being a King of the *Gentiles*; and he and his are very naughty and malicious " people; always having delight to be in war with the *Portugals*; and when they " are in peace, it is for their intereſt to let their merchandize paſs. From Canna- " nore you go to Cranganore, which is another ſmall fort of the Portugals, in the " land of the King of Cranganore, which is another King of the Gentiles, and a " country of ſmall importance, and of an hundred and twenty miles, full of thieves, " being under the King of Calicut, (the *Zamorin*,) a King alſo of the Gentiles, " and a great enemy to the Portugals, with whom he is always in war; and he " and his country are the neſt and reſting for ſtranger thieves, and thoſe be called " *Moors of Carpoſa*, becauſe they wear on their heads long red hats; and thieves " part the ſpoils that they take on the ſea with the King of Calicut, for he giveth " leave

" leave unto all that will go a roving, liberally to go; in ſuch wiſe that all along " that coaſt there is ſuch a number of thieves, that there is no ſailing in thoſe " ſeas, but with great ſhips, and very well armed; or elſe they muſt go in compa- " ny with the army of the Portugals."

XXVI. Upon the decline of the *Portugueſe* power, the *Dutch*, eſtabliſhing themſelves on the Malabar coaſt, took from the former the fortreſſes of Cannanore and Cochin: and about the ſame period, or as early as 1664, the *Engliſh Eaſt-India Company* appear, by the records at Tellicherry, to have begun to traffick in the *Zamorin's* dominions, in the ſouthern diſtricts of Malabar, as well as to have obtained, in 1708, in the northern parts of the ſame coaſt, a grant of the fort of Tellicherry, from the *Colaſtry*, or *Cherical Rajah*, the limits of which they ſoon extended on the ſouth ſide, by the ſucceſsful termination of a warfare, which they had in 1719 with the *Corngotte Nayr*, who alſo agreed that they ſhould enjoy the excluſive trade of pepper duty free within his country; an acquiſition which was followed in 1722, by their obtaining a ſimilar excluſive privilege (with a reſervation in favour of the *Dutch* trade alone) throughout the more extenſive country of Cherical: and in 1725 they concluded a peace with the Rajah of the diſtrict of Cartinad; by which they became entitled to the pre-emption of all the pepper and cardamums it produced; acquiring alſo ſimilar excluſive privileges in Cottiote in 1759: and in this manner ſo rapid appears to have been the extenſion of the power and influence of the Britiſh Nation on that part of the coaſt, that in 1727 the Company's ſervants at Tellicherry mediated a peace between the Kings of Canara and Colaſtria, under which circumſtances they added, in 1734-5, the iſland of Dermapatam, and the fort of Madacara, to their poſſeſſions, together with the entire laſt mentioned iſland in the year 1749, with power to adminiſter juſtice therein, on the ſame footing as at Tellicherry: and they appear, in ſhort, to have been from this period courted, reſpected, and feared, by all the Rajahs and Chiefs within the limits of the ancient Colaſtrian kingdom, with which their good intelligence ſuffered, however, a temporary interruption, in conſequence of the Company's Government having, in 1751, entered into a treaty with the Canareſe King of Bednore; whereby, for the conſideration of a factory at Onore, and a freedom of trade in his dominions, they agreed to aſſiſt him in the proſecution of that Prince's then meditated continuation of hoſtilities againſt the country of Colaſtria: but the former harmony was again eſtabliſhed in 1757, when a new treaty of mutual defence was concluded between the company and the Rajah of Cherical; and ſuch

appears

appears to have been in general the progreſs of the Britiſh influence, that the *Engliſh Eaſt-India Company* became every where entitled to ſuperior or excluſive advantages in purchaſing the valuable products of the country, viz. pepper, cardamums, and ſandal-wood; and at laſt obtained, in 1761, from the Rajah of Cherical, the further important privilege of collecting for their own behalf, the cuſtom-houſe duties and tolls within their own territories, for the moderate conſideration of a fixed quit-rent of 21,000 ſilver fanams, or 42,000 rupees per annum, to be paid to his government: in addition to all which, he and the other Rajahs had by this time ſucceſſively yielded up their right to all wrecks or ſtranding of the Company's veſſels or property; an article which, with the cuſtoms on merchandize, conſtituted two of the moſt inherent and acknowledged rights of the Malabar Princes at that period.

XXVII. For otherwiſe thoſe Rajahs' rights in general did not then extend to the exaction of any regular, ſettled, or fixed revenue from their ſubjects, the original conſtitution of their government only entitling them to call on their vaſſals, the *Bráhmen* and *Nayr* landholders, for military ſervice: but, although this general exemption from any land-tax is ſtated to have thus univerſally prevailed, in the early times of the Rajahs' governments, it is, however, allowed, that they were occaſionally ſubject to ſome contribution for the extraordinary exigencies of defence againſt the invaſion of foreign enemies, ſuch as the Canareſe and Portugueſe: and in Cherical, and alſo in the *Samoory's* dominions, the cuſtom was at length introduced, or, perhaps, rather continued, from the earlieſt period, (as intimated in Section VI.) of the Rajahs' levying from the lands (excepting, perhaps, thoſe appertaining to the temples) a ſettled revenue or income, in money or kind, equal to one fifth of the produce: and the Rajahs held alſo large domains of their own, which, with the cuſtoms on trade, and mint duties, might have been ſufficient for the maintenance of their ordinary ſtate; more eſpecially as, in addition to theſe rights, they, under the head of *Pooreſhandrum*, exacted from the *Mapillas* (i.e. the deſcendants of the Muſſulmans*) a ſhare of the eſtates of all deceaſed perſons; whilſt,

* Of the term *Mahapilla*, or *Mapilla*, I have heard many derivations; one of which was given me by a *Cauzy* of their own tribe, who ſcrupled not (whether jocularly, or otherwiſe, I cannot determine) to combine it of the two *Hindvee* words *Mah*, mother, and *Pilla*, a puppy; intimating, that it was a term of reproach fixed on them by the Hindoos, who certainly rate them below all their own creditable caſts, and put them on a footing with the *Chriſtians* and *Jews*; to the former of whom (if not to both) they apply the ſame name: and thus the Chriſtians of St. Thomas are diſtinguiſhed by the name of the *Syrian Mapillas*: but I rather confide in the more reaſonable derivation I obtained through

whilſt, under the donation of *Cheradayam*, they derived a conſiderable caſual, though conſtant, revenue from the fines levied on crimes and offences; as well as from another article, called *Chungadum*, or protection money, received from the ſupport and countenance granted by one Rajah to the ſubjects of another; and from the eſcheats of the eſtates of thoſe of their Hindu ſubjects who died without heirs; and from *Talapanam*, (which was a kind of poll-tax;) and from the preſents made by their ſubjects on the two annual feſtival days of ONAM and VISHOO; and other certain annual offerings; together with a few profeſſional taxes paid by diſtillers, weavers, and fiſhermen, among the lower caſts: beſides all which, they claimed, as royalties, all gold ore *, and all elephants, and the teeth of that animal; and all game, together with cardamum and *Sagwan*, or teek trees, and bamboos, and honey, and wax, and the hides of tigers, and the fins of all ſharks caught, (forming a conſiderable article of trade,) and the wreck (as above ſpecified) of all veſſels ſtranded on their coaſts.

XXVIII. The Chiefs who (under the denomination of the Rajahs, with the exception of a few independent *Nayr* landholders) have thus, for ſo long a ſucceſſion of centuries, governed Malabar, are moſtly of the *Khetrie*, or ſecond tribe of Hindus; but the *Cherical* and *Samoory* (who were the two principal families in point of extent of dominions) are of the *Samunt* or *Erary* (i. e. cowherd) caſt; as is alſo the Rajah of Travancore, who is a branch of the original *Colaſtrian* or *Cherical* family: And the mode of ſucceſſion that has time out of mind been eſtabliſhed among theſe Princes (which I the rather add here, as ZEIRREDDIEN has not otherwiſe than by inference touched at all on this part of the general ſubject) is not, as in the reſt of India, in favour of their own ſons and children, but (as noticed by ZEIRREDDIEN in reſpect to the *Nayrs*) of their brethren in the female line, and of the ſons of their ſiſters, who do not marry according to the uſually received ſenſe of that term in other parts of the world, but form connections of a longer or ſhorter duration, according to the choice of the parties, for the moſt part with Ma-

through Lieut. MAC LEAN's reſearches, viz. that the term is indeed compounded of *Maha*, or *Mahai*, and *Pilla*, though not in the aforeſaid *Cauzy's* offenſive ſenſe, but as a denomination applied to the firſt ſtrangers who ſettled in Malabar, by reaſon of their being ſuppoſed to come from Mocha, which in Malabar is called *Mahai*; whilſt *Pilla* is alſo another Malabar word for a child, or orphan; and from theſe two words the Mapillas are ſaid to take their name of "Children or Natives (or perhaps Outcaſts) of Mahai, or Mocha."

* Gold duſt is found in a hill called *Nellampoor Mella*, in the talook of *Ernaar* or *Ernaad*.

labar

labar *Bráhmens*, (called *Namboories* *,) and who differ eſſentially from others of that caſt throughout the reſt of India, by whom are thus propagated the heirs to all the Malabar principalities, without, however, the reputed fathers having, or pretending to, any paternal claim to the children of theſe tranſitory engagements, who, divided under each Rajahſhip into diſtinct branches, called *Quilon*, or *Kolgum*, or *Kollum*, i. e. families or palaces, ſucceed (as has been already intimated) to the chief Rajahſhip, or ſupreme rule, by ſeniority; whilſt the next ſenior, or heir-apparent, is ſtiled the firſt; and the others, or the heirs in expectancy, are (as for inſtance, in the *Samoory's* family) diſtinguiſhed by the titles of the ſecond, third, fourth, or fifth Rajahs; as far down as which they are called general Rajahs; and being deemed more eſpecially to belong to the ſtate, form a kind of permanent council to the *Zamorin*; whilſt all thoſe males of the family who are more than five removes from the ſenior, or Zamorinſhip, continue to be diſtinguiſhed as firſt, ſecond, or third Rajah of ſuch a Kolgum or palace, (meaning the houſe or branch of the family they were born in,) and riſe thus, as it were, in their own corps, till, by reaching within four or five of the head, they become heirs general: and as from this mode of ſucceſſion the chief Rajah is generally ſuperannuated, either the heir-apparent, or one of the younger Rajahs, is often veſted, under the title of Regent, with the active part of the adminiſtration.

XXIX. In this manner did the *Zamorins'* family, in particular, and the other Rajahs of *Malabar* in general, continue to carry on their goverment till the year 1766, when HYDER ALI KHAN made the deſcent on, and conqueſt of, their country †; of the manner and immediate conſequences of which, as far as regards his own houſe, the following deſcription was given to me by the preſent *Samoory* or *Zamorin*.

XXX. "In the Malabar year 941, A.D. 1765-6, HYDER ALI KHAN came "with an army of fifty thouſand men into *Mulyalum*, or *Mullewar*, (both terms

* *Namboory*, or *Namboodire*, is ſaid by ſome (according to the explanation furniſhed to me by Lieutenant MAC LEAN) to be a corruption of *Nambie*, applicable to thoſe whoſe privilege it is to attend to and perform the religious ſervice in the temples; whilſt others aſſert that the name is derived from *Nama*, and *Poogia*, or *Poogikanna*, to invoke, pray, or perform religious ceremonies. *Nambadie*, or *Nambidie*, a claſs of inferior *Bráhmens*, ſaid to have become degraded from their anceſtor, a *Namboorie*, having been employed by SHERMANOO PERMALOO, and the *Malabarians*, to cut off by treachery (which he effected) CHORA, a former *percimal*, or governor, whom KISSEN RAO had ſent back with an army to ſuperſede SHERMANOO, as intimated in Section VII. And beſides theſe, there are above a dozen more ſubdiviſions of the *Bráhmenical* tribe.

† This is to be underſtood with the exception of *Paulghaut*, which HYDER had poſſeſſed himſelf of four or five years before.

"meaning the Malabar country,) and waged war with my maternal uncle; "and having defeated him, took poſſeſſion of his dominion. My uncle ſent a "vakeel (or ambaſſador) to HYDER ALI KHAN, to requeſt that his country might "be reſtored to him, and agreed to pay any tribute which might be ſet- "tled. *Hyder* gave a very favourable reception to the ambaſſador, but inform- "ed him, that, as he could not place entire reliance on his word, he propoſed "himſelf to depute two perſons, by name SREE NEWAUS RAO and MOOKUT "RAO, to the Rajah, to communicate his views; adding, that the Rajah might "truſt to his honour, and to go to meet him, when he would ſettle with him the "terms that might be concerted between them. The vakeel came back with "*Hyder's* men to the late Rajah, and informed him of what had paſſed; where- "upon the Rajah intimated his apprehenſions of *Hyder*, whom he ſpoke of as a "man of a quarrelſome diſpoſition, and who had diſgraced many perſons of high "rank, and who would probably be diſpoſed to inflict ſome mark of diſgrace upon "him alſo; wherefore he (the Rajah) declared, that he would place his reliance "not ſo much on *Hyder*, as upon the aſſurances from his two agents, who, being "both *Brâhmens*, he would, on their ſwearing by their *Brâhmenical threads*, by the "ſalgram, (a ſtone ſacred among the *Hindus*,) and by their ſwords, that he ſhould "return in ſafety, conſent to accompany them, to have an interview with *Hyder*; "to all which they agreed; and as *Hyder's* army was at Toorſhery, the Rajah, my "uncle, went with *Sree Newaus Rao* and *Mookut Rao* to meet *Hyder*, who ad- "vanced to *Coorumnar*, where the meeting took place.

2d. "During the interview, they converſed about the country: But *Hyder* ſoon "broke off the conference, by demanding of the Rajah a crore of gold mohurs; "upon which the latter aſſured him, if he were to ſell the whole of the Calicut "country, he could not get near that ſum for it; but that he would deliver the "whole of his treaſure, and other property, and pay him as much as was in his "power: yet *Hyder* was not ſatisfied with this offer, but cauſed the Rajah to be "ſeized, and impriſoned; and ſent him under a guard of five hundred horſe, and "two thouſand infantry, to the fort of Calicut; and the Rajah was confined in his "own houſe without food, and was ſtrictly prohibited from performing the ceremo- "nies of his religion; and as he thought that *Hyder* might inflict ſome further diſ- "grace upon him, either by cauſing him to be hanged, or blown from a gun, the "Rajah ſet fire to the houſe with his own hand, and was conſumed in it."

XXXI. This firſt acquiſition of Malabar by the late *Hyder Ali Khan* was not of long duration; for the *Zamorin*, and other Rajahs, took advantage of his entering

"into

into war with the *Engliſh Eaſt-India Company* in 1768, to reinſtate themſelves: and they maintained poſſeſſion till 1774, when *Hyder*, deſcending the Ghauts a ſecond time with an army into the northern parts, and ſending another, under *Sree Newaus Rao* through Paulghaut into the Southern diviſion, the Princeſs of the *Samoory's* family again fled into Travancore: and *Hyder's* direct and immediate government and adminiſtration appear from that period to have permanently pervaded, and become, in ſome degree, eſtabliſhed, throughout all the ſouthern diviſion of Malabar.

XXXII. For ſome northern chieftains do not appear to have, on *Hyder's* firſt or ſecond conqueſt, forſaken their countries, but agreed to become his tributaries; whilſt the ſouthern diſtricts became a prey to almoſt conſtant diſſenſions, ariſing from the reſiſtance and troubles which the Rajahs of the *Samoory's* family never diſcontinued to excite againſt the authority of *Hyder's* government, which was unable either effectually to quell theſe continued diſturbances, or to puniſh, or even to expel, the authors of them; ſo that his officers were at length obliged to purchaſe that quiet which they could not command, by ſtipulating, in 1779, with one of the repreſentatives of the *Samoory's* houſe, to allow him to levy a moderate rateable ceſs from the country for his own ſupport; the effects of which conciliation could, however, hardly have produced any beneficial effects to the parties, or the inhabitants, before they were again embroiled by the conſequences of the attack on and ſiege of Tellicherry, in 1779-80, and of the general war that followed; during which (that is, after the raiſing of the ſiege in queſtion) the Rajahs of the *Samoory's* houſe took all the part in their power in favour of the Britiſh arms, and conſiderable ſucceſſes attended their joint efforts in the capture, in 1782, of Calicut, and other places: but, by the peace of 1784, the Malabar countries being again given up, the ſouthern as well as northern Rajahs were left at TIPPOO's mercy, which did not, however, prevent ſome of the *Samoories* from ſtill lurking in, and occaſionally exciting alarm and diſturbances, throughout the former part of theſe diſtricts; ſo that the officers of TIPPOO's government were obliged, in a like manner as their predeceſſors under that of his father, to induce this family to a peaceable conduct, by beſtowing a penſion in *Jaghire* upon RUVEE VURMA, one of the moſt active of its members; which might, perhaps, have led to a cloſer union between the exiled *Zamorin* and the Myſore government, had not the negociations to that end been interrupted in conſequence of a reſolution formed by TIPPOO (in the combined view of indulging his zeal as a *Mahommedan*, and of, at the ſame time, rooting up, as he fondly might imagine, the cauſes of that averſion which the

Malabar

Malabar Hindus had hitherto ſhewn to his government) to attempt the forcible converſion of all his *Hindu* ſubjects in *Malabar* to the *Muſſulman* faith; for which purpoſe, after ineffectually trying in perſon the effects of perſuaſion, in a progreſs that he made into that country in April, 1788, he directed his officers of Calicut, to begin by ſeizing on the *Bráhmens*, and to render them examples to the other claſſes, by enforcing circumciſion on them, and compelling them to eat beef; and accordingly many *Bráhmens* were ſeized in or about the month of July, 1788, and were thus forcibly deprived of their caſts; whilſt others ſought for ſhelter with the Rajahs of the *Samoory's* family, two or three of whom were then within the Calicut diſtricts; and TIPPOO's having himſelf made ſimilar conſtrained converſions of a Rajah of the family of *Perepnaad*, (one of the ſouthern *talooks*,) and of TICHERA TEROOPAR, a principal *Nayr* of *Nelemboor*, in the ſame ſouthern diviſion of that country, together with ſome other perſons, whom he had for various cauſes carried up with him into Coimbitoor, theſe combined circumſtances, and the return of the above named victims to his bigotry, ſome ſhort time thereafter into *Malabar*, ſpread conſiderable alarm; and the injured parties, as well as the great body of *Nayrs* and *Hindus*, who juſtly feared for what might happen to themſelves, rallied around, and looked principally up to, that Prince of the *Samoory's* family, called the Younger RUVEE VURMA, (who with his elder brother, of the ſame name, had ſome years before forced HYDER's officers to purchaſe their temporary and doubtful neutrality,) through whoſe aſſiſtance upwards of thirty thouſand *Bráhmens* (including their wives and families) eſcaped from July to November, 1788, from the Calicut diſtricts into Travancore; beſides which, reſenting theſe oppreſſions by TIPPOO on thoſe of his ſect and religion, RUVEE VURMA proceeded to open hoſtilities with the officers of TIPPOO's government, and proving victorious, and being aſſiſted by the *Nelemboor* and *Perepnaad* converts, as well as by the *Nayrs* in general, and even by ſome of the *Mapillas*, a general inſurrection took place throughout the ſouthern diſtricts, and the inſurgents becoming maſters of the open country, inveſted Calicut, ſo that TIPPOO found it neceſſary to diſpatch *Monſieur Lally* with a ſtrong force to its relief, on whoſe arrival the Rajah retreated, and was afterwards attacked in different places, without, however, being driven quite out of the field; inſomuch that TIPPOO, fearing, perhaps, for the ſtability of his dominion in *Malabar*, followed *Monſieur Lally* in perſon, in January or February, 1789; at which period his deſigns were generally reported to aim at the entire converſion, or extirpation, of the whole race of Rajahs, *Nayrs*, and other *Hindus*;

many

many of whom were accordingly ſeized on, and circumciſed; whilſt others eſcaped; or, failing in the attempt, put themſelves to death, to avoid loſs of caſt; one affecting inſtance of which is related of the Rajah of Cherical, who, finding that he was alſo to be circumciſed, attempted to eſcape; and being purſued by TIPPOO's troops, and ſeeing no likelihood of being able to maintain any longer reſiſtance againſt them, he, after providing for the ſafety of his ſiſter and her ſon, by ſending them off to Travancore, preferred for himſelf a voluntary death to the ignominy that he knew awaited his ſurvivance; and he accordingly died either by his own hand, or by that of a friendly *Nayr*, whom he is ſaid to have required to perform this laſt mournful office for him; whereupon TIPPOO, diſappointed of his prey, ſeized on the dead Rajah's effects and country, which he continued to hold till finally deprived, by the *Britiſh* arms, of that, and the greater of his Malabar territories, by the ſucceſsful war that terminated by the peace, and his conſequent ceſſion of that country, in the year 1792; ſince which the *Zamorin*, and all the other Rajahs, have returned to their diſtricts; into which they have been re-admitted, in full ſubordination to the Company's Government, which can alone beneficially conduct the adminiſtration of that coaſt in its preſent circumſtances, and adminiſter equal and impartial juſtice to the two great claſſes of *Hindus* and *Mahommedans*, of which the preſent ſociety conſiſts; and who, ſtill ſmarting under the impreſſion of the injuries they reciprocally inflicted and ſuffered during the turbulent and calamitous period of the *Myſore* dominion, can hardly be deemed to be in temper to qualify either to ſtand towards each other in the relation of ſovereign and ſubject; more eſpecially as the authority would have reverted, and the conſequent retaliation have no doubt been exerciſed, (as was in ſome inſtances at firſt attempted,) by thoſe who had been, during the laſt twenty years, the inferior and ſuffering party; for the *Mapillas*, or *Mahommedans*, finding themſelves, during the preceding diſaſtrous and unſettled adminiſtration of the religion of their new Prince, had availed themſelves of that powerful circumſtance in their favour, to moleſt, deſpoil, and (as far as in them lay) to ruin their former *Hindu* ſuperiors; ſo that the bitterneſs of the enmity between the two ſects had riſen to the higheſt pitch of rancour, and will no doubt require a courſe of years to ſubſide, or to give place to a re-eſtabliſhment of the ancient amity.

XXXIII. It has been already intimated, that the *Mapillas* in the ſouthern diſtricts exceed in numbers the remaining race of *Hindus*; and although many of them, who inhabit the towns on the coaſt, are induſtrious and quiet ſubjects, yet there

there is a large proportion, called the *Jungle Mapillas*, who, occupying the interior receſſes near to the hills, have been ſo long inured to predatory habits, that ſome elapſe of time muſt be required fully to reclaim them.

XXXIV. I have thus ſubmitted to the Society the beſt account which, from the materials in my poſſeſſion, I have been able to draw up of the Hiſtory and Manners of the Inhabitants in the new acquiſition of the *Eaſt-India Company*, excepting as far as regards the *Neſtorians*, and other *Chriſtians*, and the *Jews*; the major part of both of whom living to the ſouthward of what are properly the *Britiſh* limits, I have not hitherto had any ſufficient opportunity of acquiring minute or accurate information reſpecting them.

II.

AN ACCOUNT OF TWO FAKEERS,

WITH THEIR PORTRAITS.

By JONATHAN DUNCAN, *Eſq.*

I BEG leave to lay before the Society the accompanying Pictures of two *Fakeers*, now living at *Benares*, which I had drawn there from the life. The firſt is named PURANA POORI, or (as uſually pronounced in Hindvee) PRAUN POORY, a *Suny-aſſy*, diſtinguiſhed by the epithet *Oordhbahu*, from his arms and his hands being in a fixed poſition above his head; and as he is a very intelligent man, and has been a great traveller, he conſented, in the month of May, 1792, to gratify my curioſity, by allowing to be committed to writing, by a ſervant of mine, from his verbal delivery in the Hinduſtan language, a relation of his obſervations in the various countries into which he has penetrated; but as his account is too long for inſertion in the *Aſiatick Reſearches*, (ſhould it even be deemed to merit a place in ſo reſpectable a repoſitory,) I have here extracted the principal parts of it, as an accompaniment to the portrait; having only farther to premiſe, that I have the utmoſt reliance on our traveller's not deſigning to impoſe in any part of his narrative; but allowance muſt be made for defects of memory, in a relation extending through ſo many years, and comprehending ſuch a number of objects.

II. PRAUN POORY is a native of *Canouge*, of the *Khetry* or *Raujpoot* tribe. At nine years of age he ſecretly withdrew from his father's houſe, and proceeded to the

Fig 1.

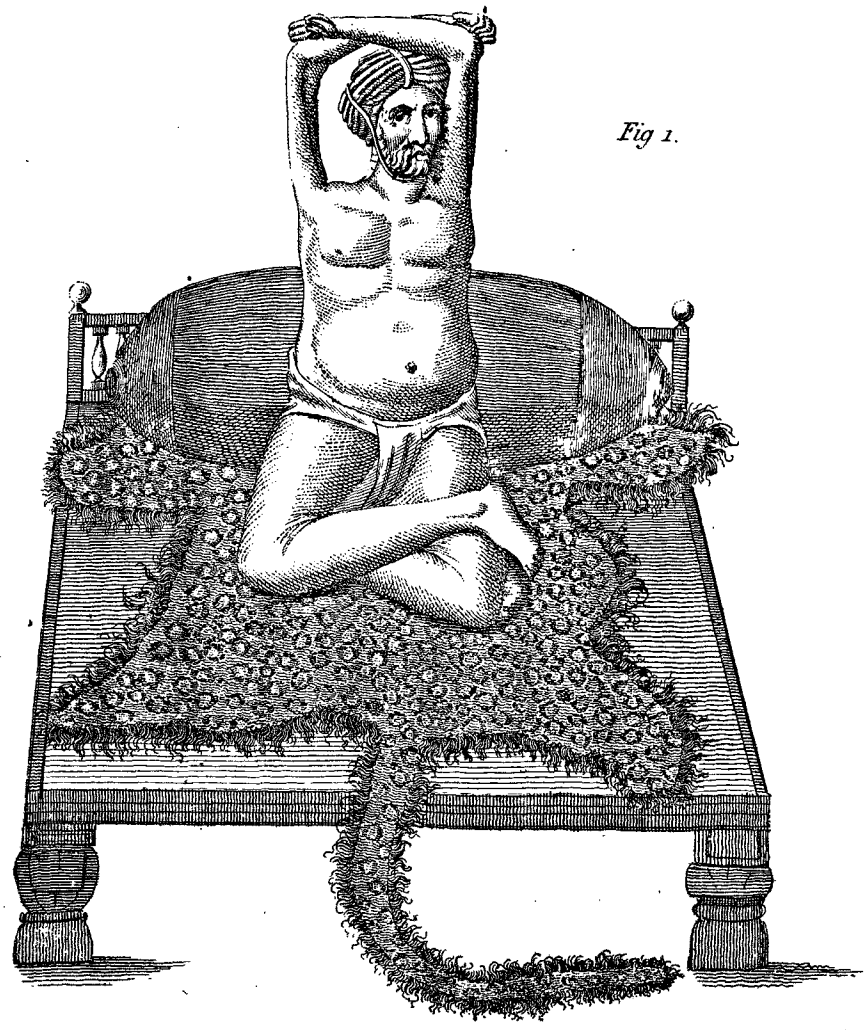
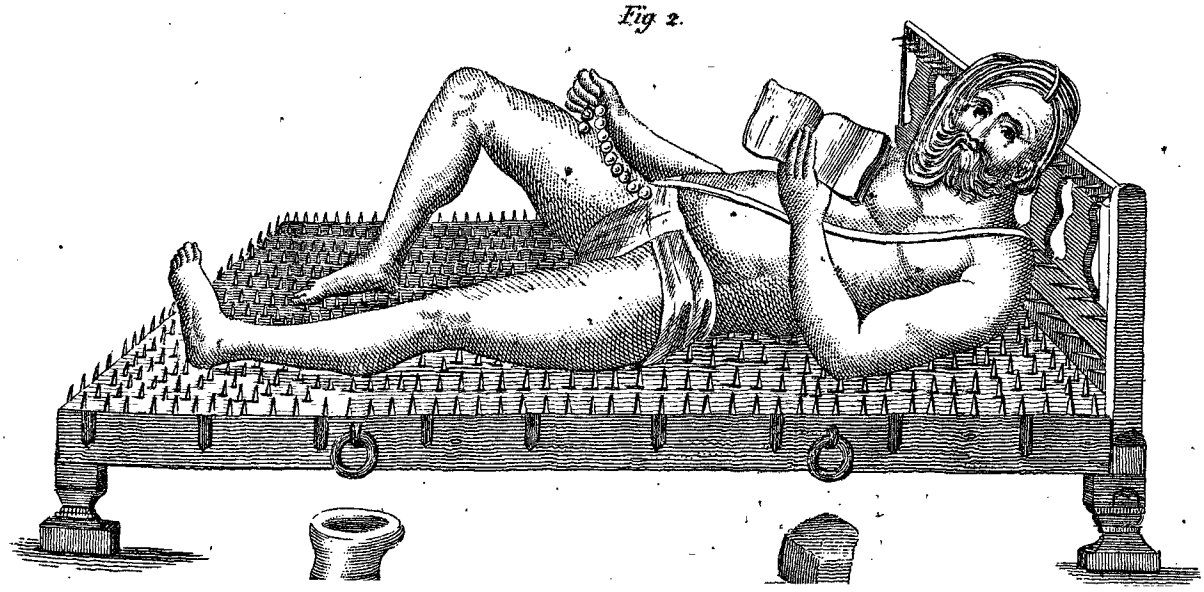


Fig 2.



the city of Bethour, on the banks of the Ganges, where he became a Fakeer, about the time (for he cannot otherwiſe fix the year) of MUNSOOR ALI KHAN's retreat from Delhi to Lucknow, and two or three years before the ſack of Mat'hura by AHMED SHAH ABDALLI; which two events are in SCOTT's "*Hiſtory of the* "*Dekkan*," related under the years 1751-2 and 1756; within which period he came to *Allahabad* to the great annual meeting of pilgrims, where hearing of the merits attached to what he deſcribes as the eighteen different kinds of *Tupiſya*, or modes of devotional diſcipline, he made choice of that of *Oordbhahu*, above noticed; the firſt operation of which he repreſents to be very painful, and to require preparation by a previous courſe of abſtinence.

III. He then ſet out to viſit Ramiſher, oppoſite to Ceylon, taking his route by Kalpi, Oujeine, Burahanpoor, Aurungabad, and Elora; the ſurpriſing excavations at which place he notices: and croſſing the Godavery at Tounker, he paſſed by Poona, Settara, and various other intermediate towns, to Bednore, of which a *Ranny*, or Princeſs, was then a ſovereign; whence he went on to Seringapatam, then in poſſeſſion of its Hindu Princes, whom he names NUND RAUJE and DEO RAUJE; leaving which, he deſcended through the Tamerchery Paſs into Malabar, and arrived at Chochin; whence he croſſed the Peninſula through a deſart tract of country to Ramiſher; after viſiting which, he returned up the Coromandel coaſt to the temple of *Jaggernauth* in Oriſſa, ſpecifying all the towns on this part of his route, which are too well known to require to be here enumerated.

IV. From Jaggernauth our traveller returned by nearly the ſame route to Ramiſher, whence he paſſed over into *Silan*, or Ceylon, and proceeded to its capital, which ſome, he obſerves, call *Khundi*, (Candi,) and others *Noora*; but that KHUNDI MAHA RAUJE is the Prince's deſignation; and that further on he arrived at Catlgang, on a river called the Manic Gunga, where there is a temple of CARTICA, or CARTICEYA, the ſon of MAHADEO, to which he paid his reſpects, and then went on to viſit the *Sreepud*, or, "The Divine Foot," ſituated upon a mountain of extraordinary height; and on one part of which there is alſo (according to this Fakeer's deſcription) an extenſive miry cavity, called the *Bhoput Tank*, and which bears alſo the name of the Tank of RAVAN, or RABAN, (the *b* and *v* being pronounced indifferently in various parts of India,) one of the former Kings of this Iſland, well known in the Hindu legends for his wars with RAMA, and from whom this *Tapu*, or Iſland, may probably have received its ancient appellation of *Taprobane*, (i. e. the Iſle of RABAN.) But, however this may be, our traveller

ſtates,

ſtates, that leaving this tank, he proceeded on to a ſtation called *Seeta Koond*; (where RAMA placed his wife SEETA on the occaſion of his war with her raviſher RAVAN,) and then reached at length to the *Sreepud*, on a moſt extenſive table or flat, where there is (he obſerves) a *bungalow* built over the print of the divine foot; after worſhipping which, he returned by the ſame route.

V. From Ceylon this *Sunyaſſa* paſſed over among the Malays, whom he deſcribes as being *Muſſulmans*; but there was one capital Hindu merchant, a native of Ceylon, ſettled there, at whoſe houſe he lodged for two months, and who then procured him a paſſage to Cochin, on the coaſt of Malabar, up to which he proceeded by land; particularizing, with a wonderful tenacity of memory, the ſeveral towns and places through which he paſſed, with their intermediate diſtances: but as theſe are already well enough deſcribed in our own books of geography, his account of them need not be here inſerted.

VI. In this direction he proceeded along the coaſt to Bombay, and paſſed on to Dwarac Tatta Hingulaj, or Henglaz, and through Multan, beyond the Attock, whence he changed his route to the eaſtward, and arrived at Hurdewar, where the *Ganges* enters the plains of Hinduſtan; and from that place of *Hindu* devotion he again departed in a weſterly direction, through the upper parts of the Punjab to Cabul, and thence to Bamian, where he mentions with admiration the number of ſtatues that ſtill exiſt, though the place itſelf has been long deſerted by its inhabitants.

VII. In the courſe of his rambles in this quarter of the country, he fell in with the army of AHMED SHAH ABDALLI, in the cloſe vicinity of Ghizni; and that King, having an ulcer in his noſe, conſulted our Fakeer, to know if, being an Indian, he could preſcribe a remedy for it: on which occaſion the latter acknowledged that, having no knowledge of ſurgery or medicine, he had recourſe to his wits, by inſinuating to the Prince, that there moſt probably did ſubſiſt a connexion between the ulcer and his ſovereignty, ſo that it might not be adviſable to ſeek to get rid of the one, leſt it ſhould riſk the loſs of the other; a ſuggeſtion that met (he adds) with the approbation of the Prince and his Miniſters.

VIII. PRAUN POORY afterwards travelled through *Khoraſan*, by the way of Herat and Muſh hed, to Aſtrabad, on the borders of the Caſpian Sea, and to the Maha or Buree (i. e. larger) Jowalla Mookhi, or Juâla Mûchi, terms that mean a "Flaming Mouth," as being a ſpot in the neighbourhood of Bakee, on the weſt ſide of the ſea in queſtion, whence fire iſſues; a circumſtance that has rendered it

of

of great veneration with the Hindus; and PRAUN POORY adds, that locally it is called *Dagheſtan*, a word which I underſtand to mean in *Sanſcrit*, "The Region of Heat;" though the cauſe is candidly aſcribed by our traveller to the natural circumſtance of the ground being impregnated with *naphtha* throughout all that neighbourhood.

IX. After ſojourning eleven months at this Jowalla Mookhi, he embarked on the Caſpian, and obtained a paſſage to Aſtrachan; where he mentions to have been courteouſly received by the body of Hindus reſiding in that place.

X. PRAUN POORY next proceeds to notice, that a river (meaning, no doubt, the Volga) flows under Aſtrachan, and is, he ſays, frozen over, ſo as to admit of paſſengers travelling on it during four months in the year; and thence, he mentions, in eighteen days journey, he proceeded to Moſcow, the ancient capital of Ruſſia, (the Sovereign of which was, he obſerves, a *Beeby*, or Lady,) and that he halted there during five days in the Armenian *Seray*; and he takes notice that there is an immenſe bell in this city, under which a hundred perſons may find room to ſtand; adding, that he has heard, in a month's journeying beyond Moſcow, a traveller may reach Peterſburgh, and thence get to Great Britain.

XI. But PRAUN POORY proceeded no farther than Moſcow, from which place he returned by Aſtrachan, and paſſed through Perſia, by the route of Shamaki, Sherwaun, Tubrez, Hamadan, and Iſpahan; in which capital he ſojourned during forty days, and then paſſed on to Shirauz; where he arrived during the government of KERIM SHAH, whom he deſcribes as being then about forty years of age, as far as he could judge from an audience he had of him; and there were, he adds, two Engliſh gentlemen (one of whom he calls Mr. LISTER) at this King's court at the period of his viſiting it.

XII. Embarking at Abooſheher, on the ſouthern coaſt of Perſia, he reached the Iſle of *Kharek*, then governed by a chief called MEER MANNA, who had, he obſerves, taken it from the *Dutch*, and whom he repreſents as a chieftain living by carrying on a warfare againſt all his neighbours; and he mentions ſeveral Hindus as being ſettled here. He next arrived at the iſlands called *Bahrein*, on the coaſts of which pearls are, he ſays, found; whence re-embarking for *Buſſorah*, the veſſel he was in was met and examined, and again releaſed, by the *Bombay* and *Tartar* grabs, then carrying on hoſtilities (as he underſtood) againſt SOLYMAN, the Mahommedan chief of the Bahrein Iſles. After this occurrence our traveller arrived at *Buſſorah*, a well known town and ſea-port, in which he found a number

of Hindu houſes of trade, as well as two idols or figures of VISHNU, known under his appellations of GOVINDA RAYA and CALYANA RAYA; or, according to the vulgar enunciation, and PRAUN POORY's pronunciation of their names, KULYAN ROW and GOBIND ROW.

XIII. After an ineffectual attempt to penetrate up the Tigris to Baghdad, he returned to Buſſorah, whence deſcending the Perſian Gulph, he arrived at Muſcat, where he met alſo a number of *Hindus*; and from that place he reached Surat. From hence he again proceeded by ſea to Mokha, where alſo he found a number of Hindus; and he thence returned into India, landing on its weſt coaſt, in the port of Sanyanpoor, ſituated, I ſuppoſe, towards or in the Cutch or Sinde countries.

XIV. From this port he journeyed to Balkh (where he alſo mentions Hindus being ſettled) and to Bokhara, at which he notices having viewed the famous *Derjah* of KHAJA CHESTEE, and the loftieſt minar or ſpire he has ever ſeen. From this place, after twelve days journey, he arrived at Samarkand, which he deſcribes as a large city, having a broad river flowing under it: and thence our traveller arrived, after a ten-days journey, at Budukhſhan, in the hills around which rubies are, he ſays, found; whence he travelled into Caſhmir; and from that paſſing over the hills towards Hinduſtan, he came to the Gungowtri, or "Deſcent of the Ganges," where there is, he obſerves, a ſtatue of BAGHIRATHA; at which place the river may, he ſays, be leaped over: and he further notices, that thirty coſs to the ſouthward of Gungowtri there is a fountain, or ſpring, called the *Jumnowtri* or *Yumnowtri*, which he deſcribes as the ſource of the Jumna or Yamuna River.

XV. Our traveller, leaving this part of the country, came in a ſouth-eaſt direction into Oude, and went thence into Nepaul, the ſeveral towns in which he deſcribes, incluſive of its capital, Catmandee, where flow, he obſerves, the four rivers of Naugmutty, Biſhenmutty, Roodrmutty, and Munmutty; and at ſeven days journey beyond which, he notices a ſtation called *Goſſayn-thaun*, where MAHADEO took poiſon and ſlept, as related in the Hindu books; from which place (deſcribed by him as a ſnowy tract) he returned to Catmandee, and went thence in another direction into Thibet, croſſing in his way to it the Coſa river by a bridge compoſed of iron chains; and obſerving that at Leſtee the third day's journey beyond the Coſa, is the boundary of Nepaul and Thibet, where guards are ſtationed on both ſides; whence, in another day's travelling, PRAUN POORY arrived at Khaſſa, a town within *Bhote* or *Tibet*; (for by the former name the natives often underſtand what we

mean

by the latter;) hence he proceeded to *Chehang*, and from that to *Koortee*, where paſſes are given; and then croſſed over the hills (called in that country Lungoor) into the plain of Tingri, beyond which one day's journey is Gunguir; and at the end of the next *ſangee*, (from *ſangu*,) which means, he ſays, a *bridge* over a river there: after which our traveller proceeds to notice the other diſtances and ſtations of each *munzel*, or day's journey, (with other particulars, the inſertion of all which would render this addreſs too prolix,) till he reached Lahaſſa, and the mountain of *Patala*, the ſeat of the DELAI LAMA, whence he proceeded to Degurcha, which he mentions as that of the TAISHOO LAMA; and then, in a journey of upwards of eighty days, reached to the lake of Maun Surwur, (called in the Hindu books *Mánaſaróvara*;) and his deſcription of it I ſhall here inſert in a literal tranſlation of his own words.

XVI. "Its circumference (i. e. of the lake of Maun Surwur) is of ſix days "journey, and around it are twenty or five-and-twenty *Goumaris*, or religious "ſtations or temples, and the habitations of the people called *Dowki*, whoſe dreſs "is like that of the Thibetians. The Maun Surwur is one lake; but in the middle "of it there ariſes, as it were, a partition wall; and the northern part is called "*Maun Surwur*, and the ſouthern *Lunkadh*, or *Lunkdeh*. From the Maun Surwur "part iſſues one river, and from the Lunkadh part two rivers: The firſt is called "*Bráhma*, where PURESRAM making *Tupiſya*, the *Bráhmaputra* iſſued out, and "took its courſe to the eaſtward; and of the two ſtreams that iſſue from the "Lunkadh, one is called the *Surju*, being the ſame which flows by Ayóddyà, or "Oude; and the other is called *Sutroodra*, (or, in the *Puránas*, *Shutudru*, and "vulgarly the *Sutluje*,) which flows into the *Punjaub* country; and two days "journey weſt from the Maun Surwur is the large town of Teree Ládac, the "former Rajahs of which were Hindus, but have now become Mahommedans. "The inhabitants there are like unto the Thibetians. Proceeding from Ládac, "ſeven days journey to the ſouthward, there is a mountain called *Cailaſa Cungri*, "(*Cungur* meaning a *peak*,) which is exceedingly lofty; and on its ſummit there "is a *Bhowjptur* or *Bhoorjptur* tree, from the root of which ſprouts or guſhes a "ſmall ſtream, which the people ſay is the *ſource* of the *Ganges*, and that it comes "from *Vaicont'-ha*, or heaven, as is alſo related in the *Puránàs*; although this "ſource appears to the ſight to flow from the ſpot where grows this *Bhowjputr* "tree, which is at an aſcent of ſome miles; and yet above this there is a ſtill "loftier ſummit, whither no one goes; but I have heard that on that uppermoſt

"pinnacle

" pinnacle there is a fountain or cavity, to which a *Jagui* ſomehow penetrated; " who, having immerſed his little finger in it, it became petrified. At four days " journey from Cailaſa Cungri is a mountain called *Bráhmadanda*, or BRA'HMA's " *ſtaff*, in which is the *ſource* of the *Aliknundra Ganga*; and five or ſix days " journey to the ſouth of that are ſituated on the mountains the temples dedicated " to CEDARA, or KEDARNAUTH and BUDRANAUTH; and from theſe hills flow " the ſtreams called the *Kedar Ganga* and *Sheo Ganga*; the confluxes of which, as " well as of the *Aliknundra*, with the main ſtream of the Ganges, take place near " Kernpraug and Deopraug, in the vicinity of Serinagur; whence they flow on in " a united ſtream, which iſſues into the plains of Hinduſtan at the Hurdewar."

XVII. PRAUN POORY went back from this part of the country into Nepaul and Thibet, from the capital of which he was charged by the adminiſtration there with diſpatches to the Governor General, Mr. HASTINGS, which he mentions to have delivered in the preſence of Mr. BARWELL, and of the late Meſſrs. BOGLE and ELLIOTT; after which our traveller was ſent to Benares with introductory letters to Rajah CHEYT SING and to Mr. GRAHAM, who was at that time the reſident; and ſome years afterwards Mr. HASTINGS beſtowed on him in *jaghire*, the village of *Aſſapoor*, which he continues to hold as a free tenure; though he is ſtill ſo fond of travelling, that he annually makes ſhort excurſions into different parts of India, and occaſionally as far as Nepaul.

XVIII. The name of the other Hindu Fakeer, or *Bráhmechary*, (whoſe picture reclining, in his ordinary poſition, on his bed of iron ſpikes, accompanies this,) is PERKASANUND; and he aſſumes the title or epithet of PURRUM SOATUNTRE, which implies *ſelf-poſſeſſion* or *independence*; and as his own relation of this mode of life is not very long, I deliver an Engliſh tranſlation of it, as received from him in Auguſt, 1792; only obſerving that the *Jowalla Mookhi*, which he mentions to have viſited, is not the one on the *Caſpian*, but another; for there are at the leaſt three famous places known to the Hindus under this general denomination; one near to Naugercote, another (whither PRAUN POORY went) in the vicinity of Bakee, and the third (as I have been informed by Lieut. WILFORD) at Corcoor, to the eaſtward of the *Tigris*; but whether it be the firſt or laſt of theſe *Jowalla Mookhis* that PERKASANUND viſited, his narrative is not ſufficiently clear to enable me to diſtinguiſh; neither are his general knowledge and intelligence at all equal to PRAUN POORY's, which may account for his obſervation as to the difficulty of reaching the Maun Surwur lake, whither not only PRAUN POORY, but other Fakeers,

keers, that I have ſeen at Benares, profeſs to have nevertheleſs penetrated; ſo that my preſent notice of PERKASANUND to the Society, is principally on account of the ſtrange penance he has thought fit to devote himſelf to, in fixing himſelf on his *ſer-ſeja*, or bed of ſpikes, where he conſtantly day and night remains; and, to add to what he conſiders as the merit of this ſtate of mortification, in the hot weather he has often burning around him logs of wood; and in the cold ſeaſon, water falling on his head from a perforated pot, placed in a frame at ſome height above him; and yet he ſeems contented, and to enjoy good health and ſpirits. Neither do the ſpikes appear to be in any material degree diſtreſſing to him, although he uſes not the defence of even ordinary cloathing to cover his body as a protection againſt them: but as the drawing exhibits an exact likeneſs as well of his perſon as of this bed of ſeeming torture, I ſhall not here trouble the Society with any further deſcription of either, and conclude by mentioning, that he is now living at Benares, on a ſmall proviſion that he enjoys from government.

P. S. Had my official occupations, whilſt at Benares, admitted of my paying due attention to PRAUN POORY'S narrative of his travels, the geographical information they contain, or rather point to, as to the ſource of the Ganges, Jumna, and other principal rivers, might have probably admitted of a fuller illuſtration, and greater degree of accuracy, from a farther examination of that *Sunyaſſy*, aided by the important aſſiſtance which I might in that caſe have obtained on this part of the ſubject from Lieutenant WILFORD, who has, through his own unwearied exertions, and chiefly at his own expence, collected a variety of valuable materials relative to the geography of the north of India; at the ſame time that, by a zealous application to the ſtudy of Hindu literature, joined to an intimate acquaintance with whatever the Greeks and Romans have left us, on their mythology, or concerning the general events of former ages, as far as their knowledge of the world extended, this gentleman is likely to throw much light on the earlier periods of the hiſtory of mankind.

Tranſlation

Tranſlation of the Relation delivered by PURRUM SOATUNTRE PURKASANUND BREHMCHARY *of his Travels and Life; delivered on the* 14*th of Auguſt*, 1792.

I AM a *Bráhmen* of the *Yujerveda* ſect, and of the line of *Práſher*. My anceſtors are from the Punjaub. They had a long time ago come to viſit at Jaggernauth, and had reached and were abiding at Gope gawn, where I was born. When I was only ten years of age, I uſed to give myſelf up to meditation and mortification, lying upon thorns and pebbles; a mode of life I had continued for ten years, when it was interrupted by my relations, who wanted me to think of marriage; whereupon, having attained to twenty years of age, I left my home, determined to devote myſelf to travelling. Firſt, after coming out of my houſe, I went towards Ootrakhund, by way of *Nepaul* and *Bhote*. I went into the country of the Great and Little *Lama*, where the TEESHOO LAMA lives. In this tract is the *Maun Talaee*, (i.e. tank or lake,) as far as which is inhabited, but not beyond it; and the lake called *Maun Surwur* is ſeventeen *munzels*, or days journey, farther on, in a jungly country, which prevents acceſs to it. There are in this quarter the places known under the denominations of *Muni*, *Maheſho*, *Mahadeo*, and of *Teloke*, *Nauthjee*, and the *Debbees*, or cooking places, of *Nownauth*; and of the eighty-four *Sidhs*, or religious perſons, thus diſtinguiſhed; all ſituated on this ſide of the Maun Surwur. Into theſe Debbees, if one throw in either two loaves, or as many as are wanted; one in the name of the *Sidh*, and another in one's own name; that in the name of the *Sidh* remains at the bottom, and that in one's own name riſes up baked. Theſe places I viſited. At the Maun Talàee the boundaries of four countries meet, viz. that of China, of the *Lama*'s country, of the Beſeher country, and that of the Cooloo country.

Proceeding thus in religious progreſs from hill to hill, I paſſed through the Shaum country, and deſcending the hills arrived in Caſhmir, where I halted for devotional purpoſes, as well as to proſecute my ſtudies. From Caſhmir I went through Thibet to the Great Jowallah, which is ſituated in a country where fire riſes out of the ground for the ſpace of twelve coſs. In this Jowallah whoever wants to dreſs victuals, or boil water, they have only to dig a little fiſſure into the ſurface of the ground, and place the article thereon, which will ſerve without wood. On this ſide of Peiſhore, where the *Sendhe* ſalt is produced, there is a village called

called *Dudun Khan's Pend*, adjoining to the ſalt pits. The Rajah of that country was called Rajah BHENDA SINGH. I had here ſhut myſelf up in a *Gowpha*, or cell, where I vowed to remain doing penance for a period of twelve years. Vermin or worms gnawed my fleſh, of which the marks ſtill remain; and when one year had elapſed, then the Rajah opened the door of the cell, whereupon I ſaid to him, "either take my curſe, or make me a *ſer-ſeja*, or bed of ſpikes;" and then that Rajah made for me the *ſer-ſeja* I now occupy. During the four months of the winter I made *jel-ſeja* upon this ſeat. *Jel-ſeja* is, that night and day water is let fall upon my head. From thence, by the Sindh country I went to Hingoolauje, (a mountain dedicated to *Debee*.) All the country to the weſt and ſouth I travelled over upon this *ſer-ſeja*, coming at length to Preyago, or Allahabad; and paſſing by Caſhi, or Benares, I went to the temple of Jaggernauth; and viſiting Balajee, proceeded on to Ramiſher; and, after viſiting that place, I journied on to Surat. In Surat I embarked in a veſſel, and went by ſea to Muſcat in twelve days; and thence returning, came to Surat again. Mr. BODDAM was then at Surat; and he afterwards went to Bombay. I ſtayed two years at Surat. Mr. BODDAM granted me ſomething to ſubſiſt on with my followers, and built a houſe for me; and ſtill my *Cheilas*, or diſciples, are there. It is thirty-five years ſince I made *Tupiſya* upon this *ſer-ſeja*. I have been in ſeveral countries. How much ſhall I cauſe to be written? I have been at every place of religious reſort, and have no longer any inclination to roam; but being deſirous of ſettling in Benares, I have come hither. Three *Yugs* have paſſed, and we are now in the fourth; and in all theſe four ages there have been religious devotees, and their diſciples; and they are firſt to make application to the Rajah, or to whoever is the ruler of the place; for even Rajahs maintain and ſerve us; and it is befitting that I obtain a ſmall place, where I may apply to my religious duties, and that ſomething may be allowed for my neceſſary expences, that I may bleſs you.

QUESTION. In all the eighteen *Tupiſyas*, or modes of penetential devotion, that are made mention of in the *Shaſter*, the one you have choſen is not ſpecified; wherefore it is inferable, that you muſt have committed ſome great offence, in expiation of which you have betaken yourſelf to the preſent very rude mode of diſcipline. Declare, therefore, what crime you have perpetrated.

ANSWER. In the *Suthya Yug*, or firſt age, there was a *Rikh*, or holy-man, called AGNIBURNA, who performed this *ſer-ſeja* diſcipline; as in the *Treta*, or ſecond age, did RAVONO, for ten thouſand years; and in the *Dwapar*, or third age, BHIKMA PITAMAHA, did the ſame; and in the *Calè Yug*, or preſent age, I have

have followed their example, during a period of thirty-five years; but not to expiate any crime or offence by me committed; in which reſpect if I be guilty, may VESHWEISHURA ſtrike me a leper here in Benares.

QUESTION. When you went to Ramiſher, at what diſtance was Lunka?

ANSWER. We go to Ramiſher to worſhip; and at the *Setbund*, or bridge there, there is a *ling* of ſand, which I paid my reſpects to: but beyond that nobody from Hinduſtan has gone to Lunka. In the ſea, your ſhips are always ſailing about; but the current is ſuch, that they cannot get thither; ſo, how can we go there? But from *Singuldeep*, or Ceylon, we can ſee the glitterings of Lunka. There I did not go; but my Cheilas have been there, who ſaid that in *Singuldeep* is the ſeat of RAWON; and HUNOOMAN's twelve *Chokies*, or watch ſtations.

QUESTION. Have you ſeen RAM's Bridge? If you have ſeen it, deſcribe its length and breadth, and whether it be ſtill ſound or broken.

ANSWER. *Ram's* Bridge, which is called *Setbund*, is aſcertained by the *Védas* to be ten *jojun* broad, and one hundred *jojun* long; but in three places it is broken. The people call it a bridge; or otherwiſe it appears to have wood growing on it, and to be inhabited.

III.

ENUMERATION OF INDIAN CLASSES.

By H. T. COLEBROOKE, *Eſq.*

THE permanent ſeparation of Claſſes, with hereditary profeſſions aſſigned to each, is among the moſt remarkable inſtitutions of *India*; and, though now leſs rigidly maintained than heretofore, muſt ſtill engage attention. On the ſubject of the mixed Claſſes, *Sanſcrit* authorities, in ſome inſtances, diſagree: Claſſes mentioned by one, are omitted by another; and texts differ on the profeſſions aſſigned to ſome tribes. A compariſon of ſeveral authorities, with a few obſervations on the ſubdiviſions of Claſſes, may tend to elucidate this ſubject, in which there is ſome intricacy.

One of the authorities I ſhall uſe, is the *Játimálá*, or Garland of Claſſes; an extract

extract from the *Rudrayámala Tantra*, which, in ſome inſtances, correſponds better with uſage and received opinions than the ordinances of MENU, and the great *D'herma-puráṇa**. On more important points its authority could not be compared with the *D'herma-ſáſtra*; but, on the ſubject of Claſſes, it may be admitted; for the *Tantras* form a branch of literature highly eſteemed, though at preſent much neglected. Their fabulous origin derives them from revelations of SIVA to PA'RVATI, confirmed by VISHNU, and therefore called *Agama*, from the initials of three words in a verſe of the *Tódala Tantra*.

"Coming from the mouth of SIVA, heard by the mountain-born goddeſs, admitted by the ſon of VASUDE'VA, it is thence called *Agama*."

Thirty-ſix are mentioned for the number of mixed claſſes; but, according to ſome opinions, that number includes the fourth original tribe, or all the original tribes, according to other authorities: yet the text quoted from the great *D'herma-puráṇa*, in the digeſt of which a verſion was tranſlated by Mr. HALHED, name thirty-nine mixed claſſes; and the *Játimálá* gives diſtinct names for a greater number.

On the four original tribes it may ſuffice, in this place, to quote the *Játimálá*, where the diſtinction of *Bráhmanas*, according to the ten countries to which their anceſtors belonged, is noticed: that diſtinction is ſtill maintained.

"In the firſt creation, by BRA'HMA, *Bráhmanas* proceeded, with the *Véda*, "from the mouth of BRA'HMA. From his arms *Cſhatriyas* ſprung; ſo from his "thigh, *Vaiſyas*; from his foot *Súdras* were produced: all with their females.

"The Lord of creation viewing them, ſaid, 'What ſhall be your occupations?' "They replied, 'We are not our own maſters, oh, God! Command us what to "undertake.'

"Viewing and comparing their labours, he made the firſt tribe ſuperior over the "reſt. As the firſt had great inclination for the divine ſciences, *(Bráhme-véda,)* "therefore he was *Bráhmana*. The protector from ill *(Cſhate)* was *Cſhatriya*; "him whoſe profeſſion *(Véſa)* conſiſts in commerce, which promotes ſucceſs in "war, for the protection of himſelf and of mankind; and in huſbandry, and atten-"dance on cattle, called *Vaiſya*. The other ſhould voluntarily ſerve the three "tribes, and therefore he became a *Súdra*: he ſhould humble himſelf at their "feet."

* The texts are cited in the *Vivádárnave ſétu*, from the *Vríhad D'herma-puráṇa*. This name I therefore retain; although I cannot learn that ſuch a *puráṇa* exiſts; or to what treatiſe the quotation refers under that name.

And in another place:

"A chief of the twice-born tribe was brought by VISHNU's eagle from *Sáca-dwipa:* thus have *Sáca dwipa Bráhmanas* become known in *Jambu dwipa.*

"In *Jambu dwipa Bráhmanas* are reckoned tenfold; *Sáreſwata, Cányacubja, Gauda, Maithila, Utcala, Drávidà, Marahâſhtrà, Tailanga, Gujjava,* and *Cáſmíra,* reſiding in the ſeveral countries *whence they are named**.

"Their ſons and grand-ſons are conſidered as *Cányacubja* prieſts, and ſo forth. "Their poſterity, deſcending from MENU, alſo inhabit the ſouthern regions: others "reſide in *Anga Banga* and *Calinga*; ſome in *Camrupa* and *Odra.* Others are "inhabitants of *Sumbhadeſa:* and twice-born men, brought by former Princes, "have been eſtabliſhed in *Bâda Mágadha, Varéndra, Chóla, Swernagráma, China,* "*Cula, Saca,* and *Berbera* †."

I ſhall proceed, without further preface, to enumerate the principal mixed claſſes, which have ſprung from intermarriages of the original tribes.

1. *Murd'habhiſhicta,* from a *Bráhmana* by a girl of the *Cſhatriya* claſs: his duty is the teaching of military exerciſes. The ſame origin is aſcribed in the great *D'herma-purána* to the *Cumbhacára* ‡, or potter, and *Tantravâya* ||, or weaver: but the *Tantravâya,* according to the *Jâtimálá,* ſprung from two mixed claſſes, begotten by a man of the *Manibandha* on a woman of the *Manicára* tribe.

2. *Ambaſht'ha,* or *Vaidya* §, whoſe profeſſion is the ſcience of medicine, was born of a *Vaiſya* woman, by a man of the ſacerdotal claſs. The ſame origin is given by the *D'herma-purána* to the *Canſacára* ¶, or brazier, and to the *Sanc'hacára* **,

* Theſe ſeveral countries are *Sáreſwata,* probably the region watered by the river *Serſutty,* as it is marked in maps; unleſs it be a part of *Bengal,* named from the branch of the *Bhágirathì,* which is diſtinguiſhed by this appellation, *Cányacubja,* or *Canoj; Gaurá,* probably the weſtern *Gár,* and not the *Gaur* of *Bengal; Mit'hila,* or *Tirabhucti,* corrupted into *Tirhut; Utcala,* ſaid to be ſituated near the celebrated temple of *Jagannát'ha; Drávidà,* pronounced *Dravira;* poſſibly the country deſcribed by that name, as a maritime region ſouth of *Carnata, (Aſi. Reſ.* vol. ii.) *Marahâſhtrà,* or *Marhátta; Telinga,* or *Telingána; Gujjara,* or *Guzrat; Cáſmíra,* or *Cáſhmir.*

† *Anga* includes *Bhágalpur. Benga,* or *Bengal* Proper, is a part only of the Suba. *Varéndra,* or tract of inundation north of the Ganges, is a part of the preſent Zila of *Rajeſhâhi. Calinga* is watered by the *Godáveri, (Aſi. Reſ.* vol. iii.) *Camrupal,* an ancient empire, is become a province of *Aſám. Odra* I underſtand to be *Oriſa* Proper. *Rada* (if that be the true reading) is well known as the country weſt of the *Bhágirat'ha. Mágadha,* or *Magadha,* is *Bahar* Proper; *Chóla,* is part of Birbhum. Another region of this name is mentioned in the Aſiatick Reſearches, vol. iii. *Swernagráma,* vulgarly *Sunargau,* is ſituated eaſt of *Dacca. China* is a portion of the preſent Chineſe empire. On the reſt I can offer no conjecture. *Saca* and *Berbera,* here mentioned, muſt differ from the *Dwipa,* and the region ſituated between the *Cuſha* and *Sancha Dwypas.*

‡ Vulgarly, *Cumár.* || Vulgarly, *Tanti.* § Vulgarly, *Baidya.*

¶ Vulgarly, *Cáſerá.* ** Vulgarly, *Sac'hèra.*

or

or worker in ſhells. Theſe again are ſtated, in the *Tantra*, as ſpringing from the intermarriages of mixed claſſes; the *Canſacára* from the *Támracúta* and the *Sanc'hacára*; alſo named *Sanchadáreca*, from the *Rájaputra* and *Gándhica*: for *Rájaputras* not only denote *Cſhatriyas* as ſons of kings, but is alſo the name of a mixed claſs, and of a tribe of fabulous origin.

Rudra-Yámala Tantra: "The origin of *Rájaputras* is from the *Vaiſya* on the "daughter of an *Ambaſht'ha*. Again, thouſands of others ſprung from the *fore-* "*heads of cows* kept to ſupply oblations."

3. *Niſháda*, or *Páraſava*, whoſe profeſſion is catching fiſh, was born of a *Súdra* woman by a man of a ſacerdotal claſs. The name is given to the iſſue of a legal marriage between a *Bráhmana* and a woman of the *Súdra* claſs. It ſhould ſeem that the iſſue of other legal marriages in different claſſes were deſcribed by the names of mixed claſſes ſpringing from intercourſe between the ſeveral tribes. This, however, is liable to ſome queſtion; and ſince ſuch marriages are conſidered as illegal in the preſent age, it is not material to purſue the inquiry.

According to the *D'herma-purána*, from the ſame origin as the *Niſháda* ſprings the *Varajíví*, or aſtrologer. In the *Tantra*, that origin is given to the *Bráhme-ſúdra*, whoſe profeſſion is to make chairs or ſtools uſed on ſome religious occaſions. Under the name of *Varajíví** is deſcribed a claſs ſpringing from the *Gópa* and *Tantraváya*, and employed in cultivating beetle. The profeſſion of aſtrology, or, at leaſt, that of making almanacks, is aſſigned, in the *Tantra*, to degraded *Bráhmanas*.

"*Bráhmanas*, falling from their tribe, become kinſmen of the twice-born "claſs: to them is aſſigned the profeſſion of aſcertaining the lunar and ſolar "days."

4. *Máhiſhya* is the ſon of a *Cſhatriya* by a woman of the *Vaiſya* tribe. His profeſſion is muſick, aſtronomy, and attendance on cattle.

5. *Ugra* was born of a *Súdra* woman by a man of the military claſs. His profeſſion, according to MENU, is killing or confining ſuch animals as live in holes: but, according to the *Tantra*, he is an encomiaſt or bard. The ſame origin is attributed to the *Nápita* † or barber; and to the *Maudáca*, or confectioner. In the *Tantra*, the *Nápita* is ſaid to be born of a *Cuverina* woman by a man of the *Patticára* claſs.

* Vulgarly, *Baraiya*.

† Vulgarly, *Náya*, or *Nai*.

6. *Cárana*

6. *Carana* * from a *Vaiſya*, by a woman of the *Súdra* claſs, is an attendant on princes, or ſecretary. The appellation of *Cáyaſt'ha* † is in general conſidered as ſynonimous with *Carana*; and accordingly the *Carana* tribe commonly aſſumes the name of *Cáyaſt'ha*: but the *Cáyaſt'has* of Bengal have pretenſions to be conſidered as true *Súdras*, which the *Játimálá* ſeems to authorize; for the origin of the *Cáyaſt'ha* is there mentioned, before the ſubject of mixed tribes is introduced, immediately after deſcribing the *Gópa* as a true *Súdra*.

One, named *Bhútidatta*, was noticed for his domeſtic aſſiduity ‡; therefore the rank of *Cáyaſt'ha* was by *Bráhmanas* aſſigned to him. From him ſprung three ſons, *Chitrángada*, *Chitraſéna*, and *Chitrágupta*: they were employed in attendance on princes.

The *D'herma-purána* aſſigns the ſame origin to the *Tambulí*, or beetle-ſeller, and to the *Tanlica*, or areca-ſeller, as to the *Carana*.

The ſix above enumerated are begotten in the direct order of the claſſes. Six are begotten in the inverſe order.

7. *Suta*, begotten by a *Cſhatriya*, on a woman of the prieſtly claſs. His occupation is managing horſes, and driving cars. The ſame origin is given, in the *Purána*, to the *Málácára* || or floriſt; but he ſprung from the *Carmacára* and *Tailica* claſſes, if the authority of the *Tantra* prevails.

8. *Mágadha*, born of a *Cſhatriya* girl, by a man of the commercial claſs, has, according to the *Sáſtra*, the profeſſion of travelling with merchandize; but, according to the *Purána* and *Tantra*, is an encomiaſt. From parents of thoſe claſſes ſprung the *Gópa* § if the *Purána* may be believed; but the *Tantra* deſcribes the *Gópa* as a true *Súdra*, and names *Gópajívi* ¶ a mixed claſs, uſing the ſame profeſſion; and ſpringing from *Tantraváya Manibandha* claſſes.

9 and 10. *Vaideha* and *Ayógava*. The occupation of the firſt, born of a *Bráhmení* by a man of the commercial claſs, is waiting on women: the ſecond, born of a *Vaiſya* woman by a man of the ſervile claſs, has the profeſſion of a carpenter.

11. *Cſhattri*, or *Cſhatta*, ſprung from a ſervile man by a woman of the military claſs, is employed in killing and confining ſuch animals as live in holes. The ſame origin is aſcribed by the *Purána* to the *Carmacára*, or ſmith, and *Dáſa*, or mariner.

* Vulgarly, *Caran*. † Vulgarly, *Cáit*.

‡ Literally, *Staying at home, (Cáéy ſanſthitah,)* whence the etymology of *Cáyaſt'ha*.

|| *Mált*. § *Góp*. ¶ *Góariá-Góp*.

The

The one is mentioned in the *Tantra* without ſpecifying the claſſes from which he ſprung; and the other has a different origin, according to the *Sáſtra* and *Tantra*.

All authorities concur in deriving the *Chándala* from a *Súdra* father and *Bráhmení* mother. His profeſſion is carrying out corpſes, and executing criminals; and officiating in other abject employments for public ſervice.

A third ſet of Indian claſſes originate from the intermarriages of the firſt and ſecond ſet: a few only have been named by MENU; and, excepting the *Abhira*, or milkman, they are not noticed by the other authorities to which I refer. But the *Purána* names other claſſes of this ſet.

A fourth ſet is derived from intercourſe between the ſeveral claſſes of the ſecond ſet: of theſe alſo few have been named by MENU; and one only of the fifth ſet, ſpringing from intermarriages of the ſecond and third ſet; and another of the ſixth ſet, derived from intercourſe between claſſes of the ſecond and fourth ſet. MENU adds to theſe claſſes four ſons of outcaſts.

The *Tantra* enumerates many other claſſes, which muſt be placed in lower ſets *, and aſcribes a different origin to ſome of the claſſes in the third and fourth ſets.

Theſe differences may be readily apprehended from the comparative table annexed. To purſue a verboſe compariſon would be tedious, and of little uſe; perhaps, of none; for I ſuſpect that their origin is fanciful; and, except the mixed claſſes named by MENU, that the reſt are terms for profeſſions rather than claſſes; and they ſhould be conſidered as denoting companies of artiſans, rather than diſtinct races. The mode in which AMERA SINHA mentions the mixed claſſes, and the profeſſions of artiſans, ſeems to ſupport this conjecture.

However, the *Játimálá* expreſsly ſtates the number of forty-two mixed claſſes, ſpringing from the intercourſe of a man of inferior claſs with a woman of ſuperior claſs. Though, like other mixed claſſes, they are included under the general denomination of *Súdra*, they are conſidered as moſt abject, and moſt of them now experience the ſame contemptuous treatment as the abject mixed claſſes mentioned by MENU. According to the *Rudrayámalá*, the domeſtic prieſts of twenty of theſe claſſes are degraded. "Avoid," ſays the *Tantra*, "the touch of the *Chandála*, and "other abject claſſes; and of thoſe who eat the fleſh of kine, often utter forbidden

* See the annexed rule formed by our late venerable Preſident.

"words,

" words, and perform none of the preſcribed ceremonies; they are called *Mléch-*
" *cha*, and going to the region of *Yavana*, have been named *Yavanas*.

" Theſe ſeven, the *Rajáca*, *Chermacára*, *Nat'a*, *Barud'a*, *Caiverta*, and *Médab-*
" *hilla*, are the laſt tribes. Whoever aſſociates with them, undoubtedly falls from
" his claſs; whoever bathes or drinks in wells or pools which they have cauſed to
" be made, muſt be purified by the five productions of kine; whoever approaches
" their women, is doubtleſs degraded from his claſs."

" For women of the *Nat'a* and *Capála* claſſes, for proſtitutes, and for women of
" the *Rajaca* and *Nápita* tribes, a man ſhould willingly make oblations, but by no
" means dally with them."

I may here remark, that, according to the *Rudrayamála*, the *Nat'a* and *Natáca* are diſtinct; but the profeſſions are not diſcriminated in that *Tantra*. If their diſtinct occupations, as dancers and actors, are accurately ſupplied, dramas are of very early date.

The *Pundraca* and *Pattaſutracára*, or feeder of ſilk-worms, and ſilk-twiſter, deſerve notice; for it has been ſaid, that ſilk was the produce of *China* ſolely until the reign of the Greek Emperor JUSTINIAN, and that the laws of *China* jealouſly guarded the excluſive production. The frequent mention of ſilk in the moſt ancient *Sanſcrit* books would not fully diſprove that opinion; but the mention of an Indian claſs, whoſe occupation it is to attend ſilk-worms, may be admitted as proof, if the antiquity of the *Tantra* be not queſtioned. I am informed, that the *Tantras* collectively are noticed in very ancient compoſitions; but as they are very numerous, they muſt have been compoſed at different periods; and the *Tantra* which I quote, might be thought comparatively modern. However, it may be preſumed that the *Rudra-yámala* is among the moſt authentic, and, by a natural inference, among the moſt ancient; ſince it is named in the *Durgameháta*, where the principal *Tantras* are enumerated *.

In the comparative Tables to which I have referred, the claſſes are named, with their origin, and the particular profeſſions aſſigned to them. How far every perſon is bound, by original inſtitutions, to adhere rigidly to the profeſſion of his claſs,

* Thus enumerated, *Cali-Tantri*, *Múndmálá*, *Tárá*, *Nirbâna-Tantra*, *Servar ſárun*, *Bira-Tantra*, *Singár-chana*, *Bhúta-Tantra*, *Uddiſán* and *Cálicácalpa*, *Bhairaví-Tantra*, and *Bhairavícalpa*, *Tódala*, *Mátribchédancha*, *Máya-Tantra*, *Biréſwara*, *Biſeves-ára*, *Samayá-Tantra*, *Bráhma-Yámala-Tantra*, *Rudra-Yámala-Tantra*, *Sanctryámala-Tantra*, *Gáyatrí-Tantra*, *Cálicácula Servaſiwa*, *Culárnnava*, *Yógini-Tantra*, and the *Tantra Mchiſhamarddiní*. Theſe are here univerſally known, Oh, BHAIRAVI, *greateſt of ſouls!* And many are the *Tantras* uttered by SAMBHU.

may

may merit ſome enquiry. Lawyers have largely diſcuſſed the texts of law concerning this ſubject, and ſome difference of opinion occurs in their writings. This, however, is not the place for entering into ſuch diſquiſitions. I ſhall therefore briefly ſtate what appears to be the beſt eſtabliſhed opinion, as deduced from the texts of MENU, and other legal authorities.

The regular means of ſubſiſtence for a *Bráhmana*, are aſſiſting to ſacrifice, teaching the *Védas*, and receiving gifts; for a *Cſhatriya*, bearing arms; for a *Vaiſya*, merchandize, attending on cattle, and agriculture; for a *Súdra*, ſervile attendance on the higher claſſes. The moſt commendable are, reſpectively for the four claſſes, teaching the *Véda*, defending the people, commerce, or keeping herds or flocks, and ſervile attendance on the learned and virtuous prieſts.

A *Bráhmana*, unable to ſubſiſt by his duties, may live by the duty of a ſoldier: if he cannot get a ſubſiſtence by either of theſe employments, he may apply to tillage, and attendance on cattle, or gain a competence by traffick, avoiding certain commodities. A *Cſhatriya*, in diſtreſs, may ſubſiſt by all theſe means; but he muſt not have recourſe to the higheſt functions. In ſeaſons of diſtreſs, a further latitude is given. The practice of medicine, and other learned profeſſions, painting and other arts, work for wages, menial ſervice, alms and uſury, are among the modes of ſubſiſtence allowed to the *Bráhmana* and *Cſhatriya*. A *Vaiſya*, unable to ſubſiſt by his own duties, may deſcend to the ſervile acts of a *Súdra*. And a *Súdra*, not finding employment by waiting on men of the higher claſſes, may ſubſiſt by handicrafts; principally following thoſe mechanical occupations, as joinery and maſonry; and practical arts, as painting and writing; by following of which he may ſerve men of ſuperior claſſes: and, although a man of a lower claſs is in general reſtricted from the acts of a higher claſs, the *Súdra* is expreſsly permitted to become a trader or a huſbandman.

Beſides the particular occupations aſſigned to each of the mixed claſſes, they have the alternative of following that profeſſion which regularly belongs to the claſs from which they derive their origin on the mother's ſide: thoſe, at leaſt, have ſuch an option, who are born in the direct order of the claſſes, as the *Múrdhábhiſhicta*, *Ambaſht'ha*, and others. The mixed claſſes are alſo permitted to ſubſiſt by any of the duties of a *Súdra*; that is, by menial ſervice, by handicrafts, by commerce, or by agriculture.

Hence it appears that almoſt every occupation, though regularly it be the profeſſion of a particular claſs, is open to moſt other claſſes; and that the limitations,

far

far from being rigorous, do, in fact, reſerve only one peculiar profeſſion, that of the *Bráhmana*, which conſiſts in teaching the *Véda*, and officiating at religious ceremonies.

The claſſes are ſufficiently numerous; but the ſubdiviſions of claſſes have further multiplied diſtinctions to an endleſs variety. The ſubordinate diſtinctions may be beſt exemplified from the *Bráhmana* and *Cáyaſt'ha*, becauſe ſome of the appellations, by which the different races are diſtinguiſhed, will be familiar to many readers.

The *Bráhmanas* of Bengal are deſcended from five prieſts, invited from *Cányacubja*, by A'DISURA, King of *Gaura*, who is ſaid to have reigned about three hundred years before Chriſt. Theſe were *Bhat't'a Neráyna*, of the family of *San'dila*, a ſon of *Caś'yapa*; *Dacſha*, alſo a deſcendant of *Caś'yapa*; *Védagarva*, of the family of *Vatſa*; *Chandra*, of the family of *Saverna*, a ſon of *Caś'yapa*; and *Srí Herſhu*, a deſcendant of *Bhavadwája*.

From theſe anceſtors have branched no fewer than a hundred and fifty-ſix families, of which the precedence was fixed by BALLA'LA SE'NA, who reigned in the twelfth century of the Chriſtian æra. One hundred of theſe families ſettled in *Varéndra*, and fifty-ſix in *Rara*. They are now diſperſed throughout Bengal, but retain the family diſtinctions fixed by BALLA'LA SE'NA. They are denominated from the families to which their five progenitors belonged, and are ſtill conſidered as *Cányacubja Bráhmanas*.

At the period when theſe prieſts were invited by the king of *Gaura*, ſome *Sáreſwata Bráhmanas*, and a few *Vaidicas*, reſided in Bengal. Of the *Bráhmanas* of *Sáreſwata* none are now found in Bengal; but five families of *Vaidicas* are extant, and are admitted to intermarry with the *Bráhmanas* of *Rárá*.

Among the *Bráhmanas* of *Váréndra*, eight families have pre-eminence, and eight hold the ſecond rank.* Among thoſe of *Rárá*, ſix hold the firſt

* VA'RI'NDRA BRA'HMANAS.

CULI'NA 8.

Moitra.	*Bhima,* or *Cáli.*	*Rudra-Vágíſi.*	*Sanyamini,* or *Sandyal.*
Láhari.	*Bhaduri.*	*Sadhu-Vágíſi.*	*Bhadara.*

The laſt was admitted by the election of the other ſeven.

SUDHA SRO'TRI' 8.

CASHTA SRO'TRI' 84.

The names of theſe families ſeldom occur in common intercourſe.

rank,

rank.* The diſtinctive appellations of the ſeveral families are borne by thoſe of the firſt rank; but in moſt of the other families they are diſuſed; and *Serman*, or *Sermà*, the addition common to the whole tribe of *Bráhmanas*, is aſſumed. For this practice, the prieſts of Bengal are cenſured by the *Bráhmanas* of *Mit'hilá*, and other countries, where that title is only uſed on important occaſions, and in religious ceremonies.

In *Mit'hilá* the additions are fewer, though diſtinct families are more numerous: no more than three ſirnames are in uſe in that diſtrict, *T'hácura*, *Miſra*, and *Ojhá*; each *appropriated* in any families.

The *Cáyaſt'has* of Bengal claim deſcent from five *Cáyaſt'has* who attended the prieſts invited from *Canyacubja*. Their deſcendants branched into eighty-three families, and their precedence was fixed by the ſame prince BALLA'LA SE'NA, who alſo adjuſted the family rank of other claſſes.

In *Benga* and *Decſhina Rárá* three families of *Cáyaſt'has* have pre-eminence; eight hold the ſecond rank. † The *Cáyaſt'has* of inferior rank generally aſſume the addition of *Dáſa*, common to the tribe of *Súdras*, in the ſame manner as other

* RA'RI'YA BRA'HMANAS.

CULI'NA 6.

Muchuti, Vulgarly *Muc'kerjea*.	*Ganguli*.	*Cánjelala*.
Ghóſhàla.	*Bandyagati*, Vulgarly, *Banojí*.	*Chat'ati*. Vulgarly, *Chatojí*.

SRO'TRI' 50.

The names of theſe families ſeldom occur in common intercourſe.

† CA'YAST'HAS of DECSHINA RA'RA' and BENGA.

CULI'NA 3.

Ghóſha.	*Vaſu*, Vulg. *Bo'ſe*.	*Mitra*.

SANMAULICA 8.

Dé.	*Datta*.	*Cára*.	*Pakita*.
Séna.	*Sinha*.	*Dáſa*.	*Guha*.

MAULICA 72.

Guhan.	*Gana*.	*Heda*.	*Huhin*.	*Naga*.	*Bhadre*.
Sóma.	*Pui*.	*Rudra*.	*Pála*.	*Aditya*.	*Chandra*.
Sánya, or *Sain*.			*Suin*, &c.		
Syáma, &c.					
Téja, &c.					
Chácí, &c.					

The others are omitted for the ſake of brevity; their names ſeldom occur in common intercourſe.

claſſes have ſimilar titles common to the whole tribe. The regular addition to the name of *Cſhatríya* is *Verman*; to that of a *Vaiſya*, *Gupta*; but the general title of *Déva* is commonly aſſumed; and, with a feminine termination, is alſo borne by women of other tribes.

The diſtinctions of families are important in regulating intermarriages. Genealogy is made a particular ſtudy; and the greateſt attention is given to regulate the marriages according to eſtabliſhed rules, particularly in the firſt marriage of the eldeſt ſon. The principal points to be obſerved are, not to marry within the prohibited degrees; nor in a family known by its name to be of the ſame primitive ſtock; nor in a family of inferior rank; nor even in an inferior branch of an equal family; for within ſome families gradations are eſtabliſhed. Thus, among the *Culína* of the *Cáyaſt'has*, the rank has been counted from thirteen degrees; and in every generation, ſo long as the marriage has been properly aſſorted, one degree has been added to the rank. But ſhould a marriage be contracted in a family of a lower degree, an entire forfeiture of ſuch rank would be incurred.

The ſubject is intricate; but any perſon, deſirous of acquiring information upon it, may refer to the writings of *Gat'tácas*, or genealogiſts, whoſe compoſitions are in the provincial dialect, and are known by the name of *Culají*.

IV.

SOME ACCOUNT OF THE SCULPTURES AT MAHABALIPOORUM; USUALLY CALLED THE SEVEN PAGODAS.

By J. GOLDINGHAM, *Eſq.*

THESE curious remains of antiquity, ſituate near the ſea, are about thirty-eight Engliſh miles ſoutherly from *Madras*. A diſtant view preſents merely a rock, which, on a near approach, is found deſerving of particular examination. The attention paſſing over the ſmaller objects, is firſt arreſted by a *Hindu* pagoda, covered with ſculpture, and hewn from a ſingle maſs of rock; being about twenty-ſix feet in height, nearly as long, and about half as broad. Within is the *lingam*, and a long inſcription on the wall, in characters unknown.

Near this ſtructure, the ſurface of the rock, about ninety feet in extent, and thirty in height, is covered with figures in bas-relief. A gigantic figure of the god CRISHNA is the moſt conſpicuous, with ARJOON, his favourite, in the *Hindu* attitude of prayer; but ſo void of fleſh, as to preſent more the appearance of a ſkeleton than the repreſentation of a living perſon. Below is a venerable figure, ſaid to be the father of ARJOON; both figures proving the ſculptor poſſeſſed no inconſiderable ſkill. Here are the repreſentations of ſeveral animals, and of one which the *Bráhmens* name *ſingam*, or lion; but by no means a likeneſs of that animal, wanting the peculiar characteriſtick, the mane. Something intended to repreſent this is, indeed, viſible, which has more the effect of ſpots. It appears evident, the ſculptor was by no means ſo well acquainted with the figure of the lion as with that of the elephant and monkey, both being well repreſented in this group. This ſcene, I underſtand, is taken from the *Mahabarat*, and exhibits the principal perſons whoſe actions are celebrated in that work.

Oppoſite, and ſurrounded by, a wall of ſtone, are pagodas of brick, ſaid to be of great antiquity. Adjoining is an excavation in the rock, the maſſy roof ſeemingly ſupported by columns, not unlike thoſe in the celebrated cavern in the Iſland of *Elephanta*, but have been left unfiniſhed. This was probably intended as a place of worſhip. A few paces onward is another, and a more ſpacious, excavation, now uſed, and I ſuppoſe originally intended, as a ſhelter for travellers. A ſcene of ſculpture fronts the entrance, ſaid to repreſent CRISHNA attending the herds of ANANDA. One of the group repreſents a man diverting an infant, by playing on a flute, and holding the inſtrument as we do. A gigantic figure of the god, with the *gopis*, and ſeveral good repreſentations of nature, are obſerved. The columns ſupporting the roof are of different orders, the baſe of one is the figure of a *Sphynx*. On the pavement is an inſcription. (See Inſcript.) Near is the almoſt deſerted village, which ſtill retains the ancient name *Mahabalipoorum*. The few remaining *Bráhmens* viſit the traveller, and conduct him over the rock.

In the way up the rock a prodigious circular ſtone is paſſed under, ſo placed by nature, on a ſmooth and ſloping ſurface, that you are in dread of its cruſhing you before you clear it. The diameter of this ſtone is twenty-ſeven feet. The top of the rock is ſtrewed with fragments of bricks, the remains, as you are informed, of a palace anciently ſtanding on this ſite. A rectangular poliſhed ſlab, about ten feet in length, the figure of a *ſingam* couchant, at the ſouth end, is ſhewn you as the couch of the DHERMA Rajah. A ſhort way further, the bath uſed by the females

of

of the palace is pointed out. A tale I ſuſpect fabricated by the *Bráhmens* to amuſe the traveller. That ſome of their own caſt had choſen this ſpot, retired among rocks difficult of acceſs to reſide in, and that the bath, as it is called, which is only a rough ſtone hollowed, was their reſervoir for water, would have an air of probability. The couch ſeems to have been cut from a ſtone accidentally placed in its preſent ſituation, and never to have made a part of the internal furniture of a building. The *ſingam*, if intended as a lion, is equally imperfect with the figures of the ſame animal before-mentioned.

Deſcending over immenſe beds of ſtone, you arrive at a ſpacious excavation; a temple dedicated to SI'VA, who is repreſented, in the middle compartment, of a large ſtature, and with four arms; the left foot reſts on a bull couchant; a ſmall figure of BRA'HMA on the right hand; another of VISHNU on the left; where alſo the figure of his goddeſs PARVATI' is obſerved. At one end of the temple is a gigantic figure of VISHNU, ſleeping on an enormous *Cobra de Capella*, with ſeveral heads, and ſo diſpoſed as to form a canopy over the head of the god. At the oppoſite end is the goddeſs SI'VA, with eight arms, mounted on a *ſingam*. Oppoſed to her is a gigantic figure, with a buffalo's head and human body. Between theſe is a human figure, ſuſpended with the head downwards. The goddeſs is repreſented with ſeveral warlike weapons, and ſome armed dwarf attendants; while the monſter is armed with a club. In the character of DURGA, or protector of the virtuous, the goddeſs is reſcuing from the YEM Rajah (the figure with the buffalo's head) the ſuſpended figure fallen improperly into his hands. The figure and action of the goddeſs are executed in a maſterly and ſpirited ſtyle. Over this temple, at a conſiderable elevation, is a ſmaller, wrought from a ſingle maſs of ſtone. Here is ſeen a ſlab ſimilar to the DHERMA Rajah's couch. Adjoining is a temple in the rough, and a large maſs of rock, the upper part roughly faſhioned for a pagoda. If a concluſion may be drawn from theſe unfiniſhed works, an uncommon and aſtoniſhing perſeverance was exerted in finiſhing the ſtructures here; and the more ſo, from the ſtone being a ſpecies of granite, and extremely hard.

The village contains but few houſes, moſtly inhabited by *Bráhmens*; the number of whom has, however, decreaſed of late, owing to a want of the means of ſubſiſting. The remains of ſeveral ſtone edifices are ſeen here; and a large tank, lined, with ſteps of ſtone. A canopy for the pagod attracts the attention, as by no means wanting in magnificence or elegance. It is ſupported by four columns, with baſe and capital, about twenty-ſeven feet in height, the ſhaft tapering regularly upwards;

upwards; is compoſed of a ſingle ſtone, though not round, but ſixteen ſided; meaſuring at bottom about five and a half feet.

Eaſt of the village, and waſhed by the ſea, which, perhaps, would have entirely demoliſhed it before now, but for a defence of large ſtones in front, is a pagoda of ſtone, and containing the *lingam*, was dedicated to SI'VA. Beſides the uſual figures within, one of a gigantic ſtature is obſerved ſtretched out on the ground, and repreſented as ſecured in that poſition. This the *Bráhmens* tell you was deſigned for a Rajah who was thus ſecured by VISHNU; probably alluding to a prince of the VISHNU caſt having conquered the country, and taken its prince. The ſurf here breaks far out over, as the *Bráhmens* inform you, the ruins of the city, which was incredibly large and magnificent. Many of the maſſes of ſtone near the ſhore appear to have been wrought. A *Bráhmen*, about fifty years of age, a native of the place, whom I have had an opportunity of converſing with ſince my arrival at *Madras*, informed me, his grandfather had frequently mentioned having ſeen the gilt tops of five pagodas in the ſurf, no longer viſible. In the account of this place by Mr. WILLIAM CHAMBERS, in the firſt volume of the *Aſiatick Reſearches*, we find mention of a brick pagoda, dedicated to SI'VA, and waſhed by the ſea; this is no longer viſible; but as the *Bráhmens* have no recollection of ſuch a ſtructure, and as Mr. CHAMBERS wrote from memory, I am inclined to think the pagoda of ſtone mentioned above to be the one he means. However, it appears from good authorities, that the ſea on this part of the coaſt is encroaching by very ſlow, but no leſs certain ſteps, and will perhaps in a lapſe of ages entirely hide theſe magnificent ruins.

About a mile to the ſouthward are other ſtructures of ſtone, of the ſame order as thoſe north, but having been left unfiniſhed, at firſt ſight appear different: the ſouthermoſt of theſe is about forty feet in height, twenty-nine in breadth, and nearly the ſame in length, hewn from a ſingle maſs: the outſide is covered with ſculpture, (for an account of which ſee Inſcriptions:) the next is alſo cut from one maſs of ſtone, being in length about forty-nine feet, in breadth and height twenty-five, and is rent through the middle from the top to the bottom; a large fragment from one corner is obſerved on the ground: No account is preſerved of the powerful cauſe which produced this deſtructive effect. Beſide theſe, are three ſmaller ſtructures of ſtone. Here is alſo the *ſingam*, or lion, very large, but, except in ſize, I can obſerve no difference from the figures of the ſame animal northerly.

Near

Near the *ſingam*, is an elephant of ſtone about nine feet in height, and large in proportion: Here, indeed, we obſerve the true figure and character of the animal.

The *Bráhmen* before mentioned informed me, that their *Puránas* contained no account of any of the ſtructures here deſcribed, except the *ſtone pagodas near the ſea*, and the *pagodas of brick at the village*, built by the DHERMA Rajah, and his brothers: He, however, gave me the following traditional account: That a northern prince (perhaps one of the conquerors) about one thouſand years ago, was deſirous of having a great work executed, but the *Hindu* ſculptors and maſons refuſed to execute it on the terms he offered: Attempting force I ſuppoſe, they, in number about four thouſand, fled with their effects from his country hither, where they reſided four or five years, and in this interval executed theſe magnificent works. The prince at length diſcovering them, prevailed on them to return, which they did, leaving the works unfiniſhed as they appear at preſent.

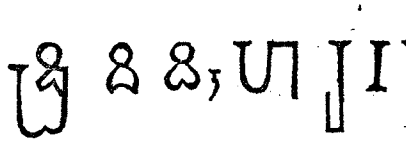
To thoſe who know the nature of theſe people, this account will not appear improbable. At preſent we ſometimes hear of all the individuals of a particular branch of trade deſerting their houſes, becauſe the hand of power has treated them ſomewhat roughly; and we obſerve like circumſtances continually in miniature. Why the *Bráhmens* reſident on the ſpot keep this account ſecret I cannot determine; but am led to ſuppoſe they have an idea, the more they can envelope the place in myſtery, the more people will be tempted to viſit and inveſtigate, by which means they profit conſiderably.

The difference of ſtyle in the architecture of theſe ſtructures, and thoſe on the coaſt hereabouts, (with exceptions to the pagodas of brick at the village, and that of ſtone near the ſea, both mentioned in the *Puránas*, and which are not different,) tends to prove that the artiſts were not of this country; and the reſemblance of ſome of the figures and pillars to thoſe in the *Elephanta* Cave, ſeems to indicate they were from the northward. The fragments of bricks, at the top of the rock, may be the remains of habitations raiſed in this place of ſecurity by the fugitives in queſtion. Some of the Inſcriptions, however, (all of which were taken by myſelf with much care,) may throw further light on this ſubject.

Inscriptions at Mahabalipoorum.

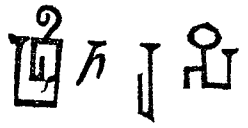
On the lower Diviſion of the Southern Structure and the Eaſtern Face.

This Inſcription is above a Figure apparently Female, but with only *one* Breaſt, (as at the Cave in *Elephanta* Iſland.) Four Arms are obſerved; in one of the Hands a Battle-axe, a Snake coiled up on the Right Side.



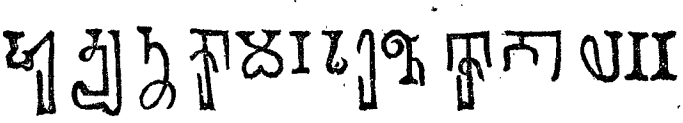
Above a Male Figure with four Arms.

Northern Face.



Above a Male Figure with Four Arms; a Battle-axe in one of the Hands.

Southern Front.

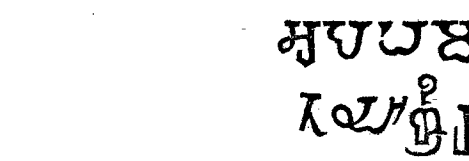


Above a Male Figure, with four Arms.

Above a Male Figure.

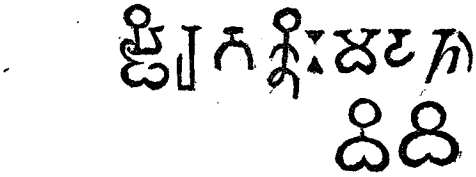
On the middle Diviſion, Eaſtern Face.

Above a Male.

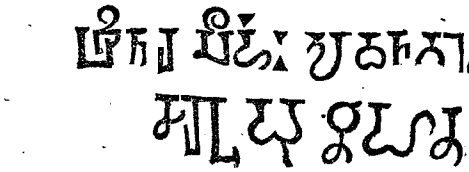


Above a Male, bearing a Weapon of War on the left Shoulder.

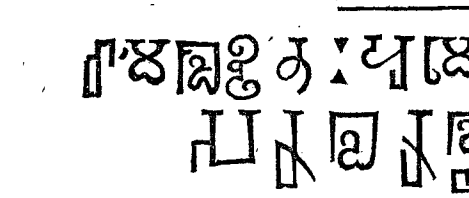
Northern Face.



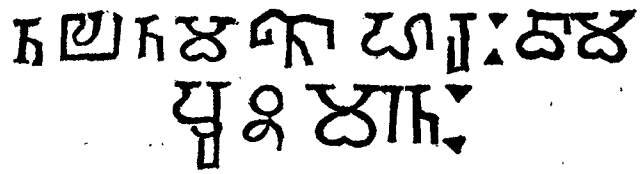
Above a Male with four Arms, leaning on a Bull; the Hair plaited, and rolled about the Head; a *String* acroſs the left Shoulder, *as the* Bráhmens' *String* of *the preſent day.*



Above two Figures, Male and Female. The former has four Arms, and the String as above; is leaning on the latter, who ſeems to ſtoop from the Weight. The Head of the Male is covered with a high Cap, while the Hair of the Female is in the ſame Form as that of the Female Figures at *Elephanta.*

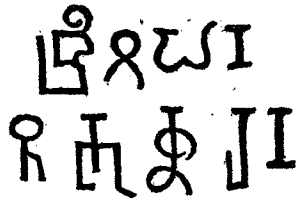


Above two Figures, Male and Female. The former has four Arms, and the String.

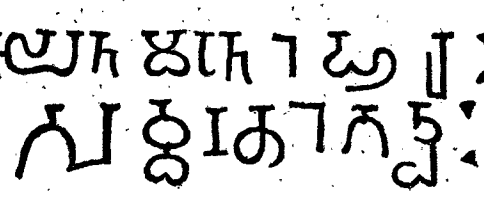


Above a Male Figure, with four Arms, and the *Brâhmenical* String.

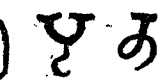
Southern Face.



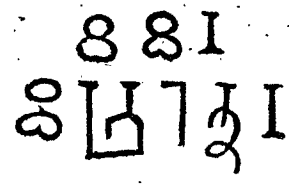
Above a Male Figure, with four Arms.



Above a Male Figure, with four Arms, leaning on a Female, ſeeming to ſtoop under the Weight.

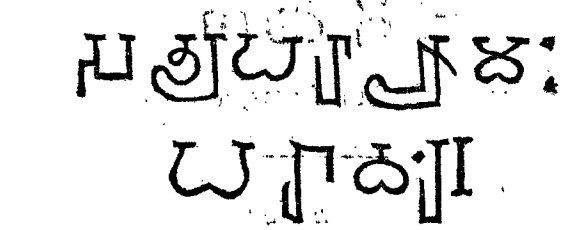


Above a Male, with four Arms. A Scepter appears in one Hand. This Inſcription being very difficult to come at, is perhaps not quite correct.



Above a Male Figure, with four Arms.

West Front.



Over a Male. The ſtring over the left Shoulder, and a warlike Weapon on the Right.

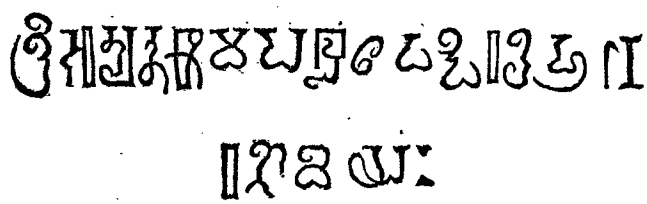
Another Figure on this Face, but no Inſcription above it.

On the Upper Diviſion.

Each Front of this Diviſion is ornamented with Figures, different in ſome Reſpects from thoſe below: all, however, of the ſame Family.

On the Eaſtern Front is a Male Figure (two Arms only.) He has two Strings or Belts; one croſſing the other over the Shoulder.

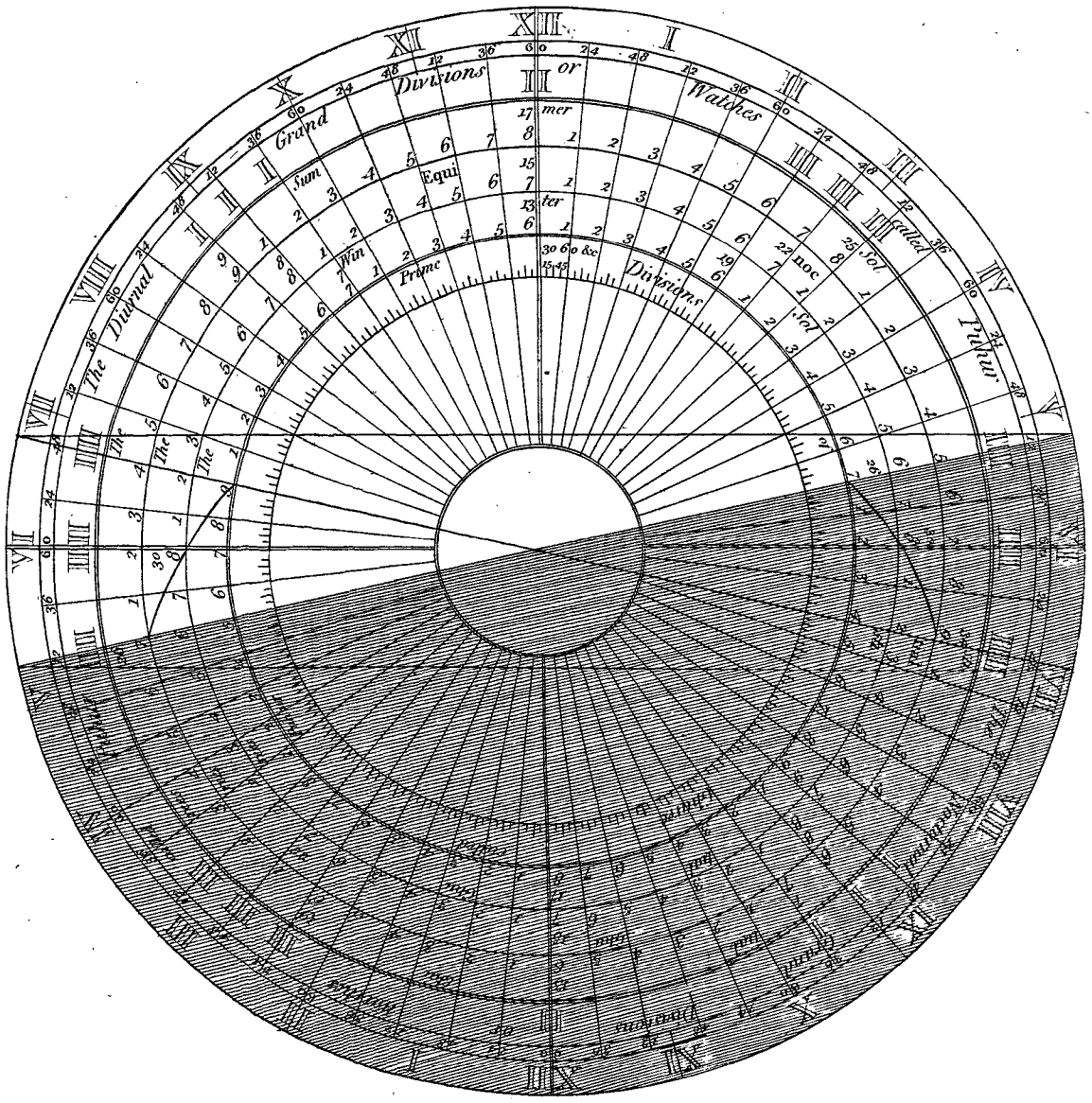
Over him is the following Inſcription, the only one on this Diviſion.

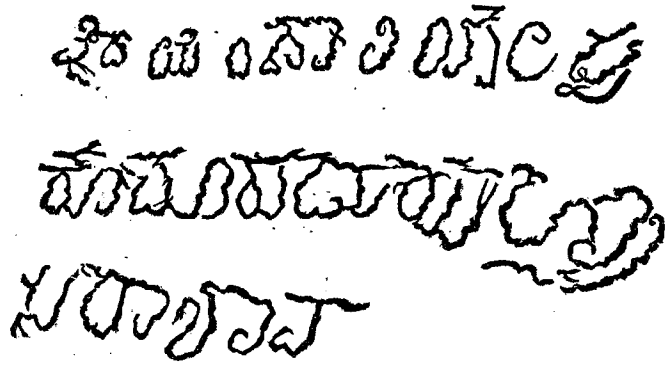


The Characters of this Inſcription bear a ſtrong Reſemblance to thoſe of the Inſcription in the Stone Pagoda, near the Village mentioned in the firſt Part of the Account of the Place.

To iace pa: 863.

The Hindoostanee Horal Diagram.





This Inſcription is on the Pavement of the Choultry, near the Village, very roughly cut, and apparently by different Artiſts from thoſe who cut the former.

V.

ACCOUNT OF THE HINDUSTANEE HOROMETRY.

By JOHN GILCHRIST, Eſq.

THE inhabitants of *Hinduſtan* commonly reckon and divide time in the following manner; which exhibits a horography ſo imperfect, however, that its inaccuracy can only be equalled by the peoples' general ignorance of ſuch a diviſion, that, with all its imperfections and abſurdities, muſt nevertheleſs anſwer the various purpoſes of many millions in this country. I ſhall therefore explain and illuſtrate ſo complex and difficult a ſubject, to the beſt of my ability and information from the natives, without preſuming, in the diſcuſſion here, to encroach on the province of the chronologiſt or aſtronomer, who may yet inveſtigate this matter with higher views, while my aim is, in the mean time, perhaps, not leſs uſefully confined to ordinary caſes and capacities entirely.

60 *Til* or *unoopul* (a ſub-diviſion of time, for which we have no relative term but *thirds*, as the ſeries next to * *ſeconds*) are one *bipul*.

60 *Bipul*

* On this principle one minute of ours being equal to 24 *puls*, and one moment to 24 *bipuls*, it is neither eaſy nor neceſſary to trace and mark the coincidence of ſuch diminutives any farther. I may, however, add what the *Furhung Kardance* contains, relative to theſe horal diviſions, as follows.

60 *Bipul* (which correſponds progreſſively only with our *ſeconds* or moments) one *pul.*

60 *Pul* (correlative as above, in this ſexageſimal ſcale with our *minutes* or *primes)* one *g,huree*, and 60 *g,huree* (called alſo, *d,und*, which we may here tranſlate *hour)* conſtitute our twenty-four hours *, or one whole day; divided into 4 *puhur din*, diurnal watches; 4 *puhur rat*, nocturnal watches.

During the equinoctial months, there are juſt 30 *g,hurees* in the day, and 30 alſo in the night; each *g,huree* properly occupying a ſpace, *at all times*, exactly equal to 24 of our minutes; becauſe 60 *g,hurees*, of 24 *Engliſh* minutes each, are of courſe 24 *Engliſh* hours of 60 *Engliſh* minutes each. For nations under or near the equator, this horological arrangement will prove convenient enough, and may yet be adduced as one argument for aſcertaining with more preciſion the country whence the *Hindus* originally came, provided they are, as is generally ſuppoſed, the inventors of the ſyſtem under conſideration here. The farther we recede from the line, the more difficult and troubleſome will the preſent plan appear. And as in this country the artificial day commences with the dawn, and cloſes juſt after ſun-ſet, it becomes neceſſary to make the *puhurs* or *watches* contract and expand occaſionally, in proportion to the length of the day, and the conſequent ſhortneſs of the night, by admitting a greater or ſmaller number of *g,hurees* into theſe grand diurnal and nocturnal diviſions alternately, and according to the ſun's progreſs to or from the tropicks. The ſummer ſolſtitial day will, therefore, conſiſt of 34 *g,hurees*, and the night of 26 only, or *vice verſa:* but, what is moſt ſin-

* *Renoo* conſtitute 1 *puluk*; 16 puluks, 1 *kaſt,ha*; 30 kaſt,has, 1 *kula*; 30 kulas, 1 *guhun*; 60 guhuns, 1 *dund*; 2 dunds, 1 *g,huree*; 30 dunds, 1 *din*; 60 dunds, 1 *din o rat*. From this work it is evident that there exiſt various modes of dividing time in *India*, becauſe a little farther on the author ſtates the following alſo, viz.

60 *Zurru*, 1 *dum*; 60 dums, 1 *lumhu*, &c. which, as well as the many local modes in uſe, it would be ſuperfluous to enumerate. I ſhall therefore attend only to the former, ſo far as they agree with our text. The *kaſt,ha* is equal to 4 *tils*, the *kula*, or two *bipuls*; the *guhun* and *pul* are the ſame; ſo are the *dund* and *(kuchee) g,huree*; but the learner muſt advert to the *g,huree* in this note, being *pukkee*, or two of the former; as this diſtinction is frequently uſed when they allot only four *g,hurees* to the *puhur*; and *pukkee* or *double* is always underſtood.

* *Lumhu* and *dum*, perhaps, anſwer to our *minutes* and *ſeconds*, as the conſtituent parts of the *fa,ut*, or hour, 24 of which are ſaid to conſtitute a natural day, and are reckoned from 1 o'clock after mid-day, regularly on through the night; alſo up to 24 o'clock the next noon, as formerly was the caſe, and which is ſtill obſerved in ſome places on the continent; or, like ours, from 1 after noon to 12 at midnight; and again, from 1 after midnight to 12 o'clock the next noon. Whether thoſe few who can talk of the *fa,ut* at all, have learnt this entirely from us or not, is a poin rather dubious to me; but I ſuſpect they have it from the Arabians, who acquired this with other ſciences from the Greeks.

gular in the *Indian* horometry, their *g,hurees* are unequally diſtributed among the day and night watches; the former varying from 6 to 9 in the *latter*, which are thus prevented from any definite coincidence with our time, except about the equinoctial periods only, when one *puhur* nearly correſponds to 3 *Engliſh* hours. I ſay *nearly*, becauſe even then the four middle watches have only 7 *g,hurees*, or 2 hours 48 minutes of ours; while the extremes have 8 *g,hurees* a-piece, or 24 *Engliſh* minutes more than the others, and conſequently agree with our 3 hours 12 minutes; while at other times the *puhur* is equal to no leſs than 3 hours 36 minutes; a fact which I believe has never yet been ſtated properly; though many writers have already given their ſentiments to the public on the ſubject before us; but they were probably miſled by ſaying 4-3s are 12 hours for the day, and the ſame for the night. Without conſidering the ſexageſimal diviſion, we muſt firſt make of the whole 24 hours, or 8 watches, 4 of which, during both equinoxes, having 7 *g,hurees* only, give 28: and the other 4 extreme watches, conſiſting at theſe periods alſo of 8 *g,hurees* each form 32—60 in all; not 64 *g,hurees*, * as ſome calculators have made it, who were not aware that the *g,huree*, or *dund*, never can be more nor leſs than 24 of our minutes, as I have proved above by conſidering that 24 multiplied by 60, or 60 by 24, muſt be alike, which I ſhall make ſtill more evident hereafter. In judicial and military proceedings, the preſent enquiry may, ſometimes, aſſume conſiderable importance; and, as an acquaintance with it may alſo facilitate other matters, I have endeavoured to exhibit the Indian horometrical ſyſtem contraſted with our own, upon a dial or horal diagram, calculated for one natural day of 24 hours, and adjuſted to both the equinoctial and ſolſtitial ſeaſons, compriſing four months of the twelve, that theſe may ſerve as ſome baſis or data for a general coincidence of the whole, at any intermediate period, until men who are better qualified than the writer of this paper to execute ſuch a taſk

* One of thoſe vulgar errors originating in the crude and ſuperficial notions which none take the trouble to examine or correct, and being thus implicitly adopted, are not ſoon nor eaſily eradicated; nay, this very idea of *ſixty-four* may be ſupported from an old diſtich.

At,h purhur *choun ſut g,huree*, k,huree pokaroon pee,
Jee nikſe, Jo pee mile; nikus ja, e yih jee.

But I anſwer, the bard ſeems a ſorry aſtronomer, or he would not have followed the erroneous opinion of there being 8 *g,hurees* in each of the eight *puhur*, and 64 in the natural day; though this prevails among the illiterate Indians uncontroverted to the preſent hour; and, were I not to expoſe it here, might continue a ſtumbling block for ever; and in this random way have we alſo imbibed the doctrine that 4 *puhur*, of three hours each, are twelve of courſe; and eight of theſe muſt give our 24. A brief, but truly incorrect, mode of ſettling this account.

with

with preciſion, condeſcend to undertake it for us. He is even ſanguine enough to hope that ſome able artiſt in Europe may yet be induced to conſtruct the dials of clocks, &c. for the Indian market on the principles delineated here, and in *Perſian* figures alſo. But we muſt now proceed to an explanation of the horal diagram adapted to the meridian of Patna, the central part of the Benares Zemindary, and the middle latitudes of *Hinduſtan*. The two exterior rings of this circle contain the complete 24 Engliſh hours, noted by the Roman letters, I, II, III, IV, &c. and the minutes are marked in figures, 24, 48, 12, 36, 60, agreeably to the ſexageſimal ſcale, whereon the equi-diſtant interſections of this dial are founded; the meridional ſemicircles of which repreſent our ſemidian watch-plates, and for obvious reaſons, with the modern horary repetition. See the note in page 864. I have diſtinguiſhed the eight (4 diurnal and 4 nocturnal) watches, or *puhurs*, from I. to IV. by Roman letters alſo, with the *chime* (gujur) or number of bells ſtruck at *each* in large figures, below the *puhur* letter, to which they belong, and in the ſame reiterated way; but theſe, inſtead of ranging from the meridian, like the Engliſh hours, commence with the equatorial and tropical lines alternately, as their ſituations and ſpaces muſt regularly accord with the riſing and ſetting of the ſun at the vernal and autumnal equinoxes, as alſo at the ſummer and winter ſolſtices. The days then differ in length alternately from 34 to 26 *g,hurees*, as noted by the chime figures of every watch; all of which will be more evident from the mode of inſerting them, and the manner that the plate has been ſhaded, to illuſtrate theſe circumſtances fully. II. *puhur*, however, never varies; and being upon the meridional line, it of courſe conſtantly falls in with our XII. day and night. The fourth ring from the circumference ſhews the *g,hurees*, when the day is longeſt, running with the ſun to the top, and from this to VI. P. M. for the ſubdiviſions of the day, and in the ſame manner by the bottom onwards for thoſe of the night, throughout theſe concatenated circular figures 1. 2. 3. 4. 5. 6. 7. 8. 9. 1. 2, &c. q. v. in the plate. Still more interior appear the equinoctial *g,hurees*, and on the ſame principles exactly. Within theſe come the winter ſolſtitial *g,hurees*, ſo clearly marked as to require no further elucidation here; except that in the three ſeries of convergent figures now enumerated, the reader will recollect, when he comes to the higheſt number of *g,hurees* in any *puhur*, to trace the *latter*, and its chime, or number of bells, out by the *g,huree* chord. For inſtance, when the days are ſhorteſt, begin 48 minutes after VI. A. M. and follow the coincident line inward to the centre, till you reach 9 and 34 for the cloſing *g,huree* and *gujur* of the night: thence go round

in

in ſucceſſion upwards with the day *g,hurees* 1. 2. 3. 4. 5. 6. 7. the chord of which laſt terminates 36 minutes after IX. and has 7 upon it for 7 bells, and 1 for *ek puhur din*, the firſt watch of the day. In this way the whole may be compared with our time, allowing not only for the different meridians in this country, but for the ſeveral intermediate periods, and the difficulty of preciſely aſcertaining the real riſing of the ſun, &c. Neareſt the centre I have inſerted the prime diviſions or *puls* of every *g,huree*, viz. 60, ſo—15, 30, 45, 60, in two ſpaces only, becauſe theſe are the invariable conſtituent minute parts of the *g,huree* at all ſeaſons of the year, and conſequently apply, (though omitted to prevent confuſion,) as in the plate, to every one of the horal ſections delineated there, into which the whole dial is equally divided. The intelligent reader may now conſult the diagram itſelf, and I truſt, with much ſatisfaction, as it, in fact, was the firſt thing that gave me any accurate knowledge of the *arrangement* and *coincidence* of the *Hinduſtanee* with the *Engliſh* hours, or of the rules on which their economy is founded. I certainly might have traced out and inſerted the whole for a complete year, had not the apprehenſion of making the figure too intricate and crowded for general utility, determined me to confine it to the elucidation of four months only; eſpecially as the real and artificial variations can be learned from an *Indian* aſtronomer, by thoſe who may wiſh to be minutely accurate on this ſubject; whence every one will have it in his own power to note the exact horal coincidences at any given period, by extending the preſent ſcheme only a little farther; becauſe the natives never add nor ſubtract a *g,huree* until the 60 *puls* of which it conſiſts are accumulated, but, with their uſual apathy, continue to diſtribute and reduce the conſtant increaſing and decreaſing temporal fractions among or from the ſeveral *puhurs* with little or no preciſion. Nay, they often have recourſe to the laſt of the diurnal or nocturnal ſubdiviſions for this purpoſe, when the grand horologiſt himſelf is about to inform them, that now is the time to wait for the whole of their loſt minutes, before they proceed on a new ſcore, at the riſk, perhaps, of making the cloſing *g,huree* of the day or night as long as any two of the reſt. On the other hand, when they have previouſly galloped too faſt with time, the ſame ill-fated hindmoſt *g,huree* may be reduced to a mere ſhadow, that the *G,huree,alee* may ſound the exact number, without regarding its diſproportion to the reſt in the ſame *puhur* at all. So much this and ſimilar freedoms have been and can be taken with time in Hinduſtan, that we may frequently hear the following ſtory: While the faſt of *Rumuzan* laſts, it is not lawful for the *Muſſulmans* to eat or drink in the day;

day; though at night they not only do both, but can uninterruptedly enjoy its other pleaſures alſo; and upon ſuch an occaſion, a certain *Omra* ſent to enquire of his *G,huree,alee*, if it was ſtill night; to which the complaiſant bellman replied in the true ſtyle of oriental adulation, *Rat to ho chookee mugut peer moorſhid ke waſte do g,huree, myn luga rukee*—" Night is paſt to be ſure; but I " have yet two hours in reſerve for his worſhip's conveniency." The apparatus with which the hours are meaſured and announced, conſiſts of a ſhallow bell-metal pan, named, from its office, *g,huree,al*, and ſuſpended ſo as to be eaſily ſtruck with a wooden mallet by the *G,huree,alee*, who thus ſtrikes the *g,hurees* as they paſs, and which he learns from an empty thin braſs cup *(kutoree)* perforated at bottom, and placed on the ſurface of water in a large veſſel, where nothing can diſturb it, while the water gradually fills the cup, and ſinks it in the ſpace of one *g,huree*, to which this hour-cup or *kutoree* has previouſly been adjuſted aſtronomically, by an aſtrolabe, uſed for ſuch purpoſes in *India*. Theſe *kutorees* are now and then found with their requiſite diviſions and ſubdiviſions, very ſcientifically marked in *Sanſcrit* characters, and may have their uſes for the more difficult and abſtruſe operations of the mathematician or aſtrologer: but for the ordinary occurrences of life, I believe the ſimple rude horology deſcribed above ſuffices (perhaps divided into fourths of a *g,huree)* the Aſiaticks in general, who, by the bye, are often wonderfully uninformed reſpecting every thing of this kind. The whole, indeed, appears, even to the better ſorts of people, ſo perplexing and inconvenient, that they are very ready to adopt our diviſions of time, when their reſidence among or near us puts this in their power: whence we may, in a great meaſure, account for the obſcurity and confuſion in which this ſubject has hitherto remained among the *Indians* themſelves; and the conſequent glimmering light that preceding writers have yet afforded in this branch of oriental knowledge, which really ſeems to have been ſlurred over as a drudgery entirely beneath their notice and enquiry. The *firſt g,huree* of the *firſt puhur* is ſo far ſacred to the Emperor of Hinduſtan, that his *G,huree,alee* alone ſtrikes *one* for it. The ſecond *g,huree*, is known by two blows on the *g,huree,al*, and ſo on: one ſtroke is added for every *g,huree* to the higheſt, which (aſſuming the equinoctial periods for this ſtatement) is eight, announced by eight diſtinct blows for the paſt *g,hurees*; after which, with a ſlight intermiſſion, the *gujur* of eight bells is ſtruck or rung, as noted in the diagram by the chime figure 8, and then one hollow ſound publiſhes the firſt, or *ek puhur din* or *rat*, as this may happen, and for which conſult the plate.

plate. In one *g,huree*, or 24 of our minutes, after this, the ſame reiteration takes place; but here ſtops, at the ſeventh or meridional *g,huree*, and is then followed with its *gujur*, or chime of 15; of which 8 are for the firſt watch, and 7 for the ſecond, or *do puhur*, now proclaimed by two full diſtinct ſounds. We next proceed with 7 more *g,hurees*, exactly noting them as before, and ringing the *gujur* of 22 ſtrokes, after the ſeventh *g,huree*, or *teen puhur*, alſo known by three loud ſounds. The fourth *puhur* has, like the firſt, 8 *g,hurees*, and differs in no other reſpect than having a *gujur* of 30 after the equatorial *g,huree* has been ſtruck, the whole being cloſed by four loud blows on the *g,huree,al* for *char puhur din* or *rat*; the repetition being the ſame day and night during the equinoctial periods, which I have here given merely as an example more eaſy for the ſcholar's comprehenſion at firſt than the reſt. The extreme *gujurs* may be properly termed the evening and morning *bell*; and, in fact, the word ſeems much reſtricted to theſe, as *puhur* alone is more commonly uſed for the middle *chimes* than *gujur* appears to be. Six or eight people are required to attend the eſtabliſhment of a *g,huree*; four through the day, and as many at night; ſo that none but wealthy men, or grandees, can afford to ſupport one as a neceſſary appendage of their conſequence and rank, which is convenient enough for the other inhabitants, who would have nothing of this ſort to conſult, as (thoſe being excepted which are attached to their armies) I imagine there are no other public *(g,hurees)* clocks in all *India*.

VI.

ON INDIAN WEIGHTS AND MEASURES.

By H. T. Colebrooke, *Eſq.*

COMMENTATORS reconcile the contradictions of ancient authors, on the ſubject of weights and meaſures, by a reference to different ſtandards. To underſtand their explanations, I have been led to ſome enquiries, the reſult of which I ſhall ſtate conciſely, to alleviate the labour of others who may ſeek information on the ſame ſubject; omitting, however, ſuch *meaſures* as are of very limited uſe.

Moſt of the authorities which I ſhall quote have not been conſulted by myſelf,

but are aſſumed from the citations in a work of GO'PA'LA BHATTA', on *Numbers* and *Quantities*, which is intitled *Sanc'hyaparimína*.

MENU, YA'JNYAWALEYA, and NA'REDA, trace all weights from the leaſt viſible quantity, which they concur in naming *traſarénu*, and deſcribing as the very ſmall mote which may be diſcerned in a ſun-beam paſſing through "a lattice." Writers on medicine proceed a ſtep further, and affirm, that a *traſarénu* contains thirty *paramánu*, or atoms: they deſcribe the *traſarénu* in words of the ſame import with the definitions given by MENU, and they furniſh another name for it, *vansì*. According to them, eighty-ſix *vansìs* make one *maríchi*, or ſenſible portion of light.

The legiſlators above named proceed from the *traſarénu* as follows:

8 *traſarénus*	=	1 *licſha*, or minute poppy ſeed.
3 *licſhas*	=	1 *rája ſherſhapa*, or black muſtard ſeed.
3 *rája ſherſhapas*	=	1 *gaura ſherſhapa*, or white muſtard ſeed.
6 *gaura ſherſhapas*	=	1 *yava*, or middle ſized barley-corn.
3 *yavas*	=	1 *crĭſhnala*, or ſeed of the *gunjà*.

This weight is the loweſt denomination in general uſe, and commonly known by the name of *retti*, corrupted from *rettìcà*, which, as well as *ractìcà*, denotes the red ſeed, as *crĭſhnala* indicates the black ſeed of the *gunjà* creeper. Each *retti* uſed by jewellers is equal to $\frac{7}{8}$ths of a carat. The ſeeds themſelves have been aſcertained by Sir WILLIAM JONES, from the average of numerous trials, at $1\frac{3}{16}$ grain. But fictitious *rettis*, in common uſe, ſhould be double of the *gunjà* ſeed; however, they weigh leſs than two grains and a quarter. For the ſicca weight contains $179\frac{2}{3}$ grains nearly; the *máſha*, $17\frac{3}{8}$ nearly; the *retti*, $2\frac{3}{16}$ nearly. Writers on medicine trace this weight from the ſmalleſt ſenſible quantity in another order.

30 *paramánus*, or atoms	=	1 *traſarénu*, or *vans'i*.
86 *vans'*	=	1 *maríchi*, or ſenſible quantity of light.
6 *maríchis*		1 *rágicà*, or black muſtard ſeed.
3 *rágicàs*	=	1 *ſherſhapa*, or white muſtard ſeed.
8 *ſherſhapas*	=	1 *yava*, or barley-corn.
4 *yavas*	=	1 *gunjà*, or *ractìcà*.

A *rettìcà* is alſo ſaid to be equal in weight to four grains of rice in the huſk: and

GO'PA'LA

GO'PA'LA BHATTA' affirms that one ſeed of the *gunjà*, according to writers on aſtronomy, is equal to two large barley-corns. Notwithſtanding this apparent uncertainty in the compariſon of a ſeed of the *gunjà* to other productions of nature, the weight of a *ractìcà* is well determined by practice, and is the common medium of compariſon for other weights. Theſe I ſhall now ſtate on the authority of MENU, YA'JNYAWALEYA, and NA'REDA.

WEIGHTS OF GOLD.

5 *chrĭſhnalas*, or *ractìcàs*	= 1 *máſha*, *máſhaca*, or *máſhica*.
16 *máſhas*	= 1 *carſha*, *acſha*, *tólaca*, or *ſuverna*.
4 *carſhas*, or *ſuvernas*	= 1 *pala*, (the ſame weight, which is alſo denominated *niſhca*.)
10 *palas*	= 1 *dharana* of gold.

YA'JNYAWALEYA adds, that five *ſuvernas* make one *pala* (of gold) according to ſome authorities.

WEIGHTS OF SILVER.

2 *ractìcàs*, or ſeeds of the *gunjà*	= 1 *máſhaca* of ſilver.
16 *máſhacas*	= 1 *dharana* of ſilver, or *puràna*.
10 *dharanas* of ſilver	= 1 *ſatamána* or *pala* of ſilver.

But a *carſha*, or eighty *ractìcàs* of copper, is called a *pana*, or *cárſhápana*.

Commentators differ on the application of the ſeveral terms. Some conſider *crĭſhnala* as a term appropriated to the quantity of one *ractìcà* of gold; but CULLU'CA BHATTA' thinks the *ſuverna* only peculiar to gold, for which metal it has alſo a name. A *pana*, or *cárſhápana*, is a meaſure of ſilver as well as of copper. There is a further diverſity in the application of the terms; for they are uſed to deſcribe other weights. NA'REDA ſays a *máſha* may alſo be conſidered as the twentieth of a *cárohápana*; and VRIHASPATI deſcribes it as the twentieth part of the *pala*. Hence we have no leſs than four *máſhas*: one *máſha* of five *ractìcàs*; another of four *ractìcàs*, (according to NA'REDA;) a third of ſixteen *ractìcàs*, according to VRIHASPATI;) and a fourth (the *máſhaca* of ſilver) conſiſting of two *ractìcàs*; not to notice the *máſhaca* uſed by the medical tribe, and conſiſting of ten, or, according to ſome authorities, of twelve, *ractìcàs*, which may be the ſame as the jeweller's *máſha* of ſix double *rettis*. To theſe I do not add the *máſha* of eight *ractìcàs*, becauſe it has been explained, as meaſured by eight ſilver *retti* weights, each twice as heavy as the ſeed; yet, as a practical denomination, it muſt be noticed. Eight ſuch *rettis* make one *máſha*; but twelve *máſhas* compoſe one *tóla*.

This

This *tóla* is no where ſuggeſted by the Hindu legiſlators. Allowing for a difference in the *retti*, it is double the weight of the legal *tóla*, or 210 grains inſtead of 105 grains.

A *niſhca*, as ſynonimous with *pala*, conſiſts of five *ſuvernas*, according to ſome authors. It is alſo a denomination for the quantity of one hundred and fifty *ſuvernas*. Other large denominations are noticed in dictionaries.

108 *ſuvernas*, or *tólacas*, of gold, conſtitute an *urubhúſhana*, *pala*, or *dínára*.

100 *palas*, or *niſhcas*, make one *tulá*; 20 *tulás*, or 2000 *palas*, one *bhára*; and 10 *bhára*, one *àchita*.

200 *palas*, or *niſhcas*, conſtitute one *hára*.

According to DA'NAYO'GI'SWARA, the tenth of a *bhára* is called *ad'hára*, which is conſequently ſynonimous with *hára*, as a term for a ſpecifick quantity of gold.

GO'PA'LA BHATTA' alſo ſtates other weights, without mentioning by what claſſes they are uſed. I ſuſpect an error in the ſtatement, becauſe it reduces the *máſha* to a very low denomination, and I ſuppoſe it to be the jeweller's weight.

6 *rájicás (ractìcàs)*	=	1 *máſhaca*, *héma*, or *vánaca*.
4 *vánacas*	=	1 *ſala*, *dharana*, or *tanca*.
2 *tancas*	=	1 *cóna*.
2 *cónas*	=	1 *carſha*.

Probably it ſhould be *ractìcàs* inſtead of *rájicás*, which would nearly correſpond with the weights ſubjoined, giving twenty-four *rettìcás* for one *dharana* in both ſtatements. It alſo correſponds with the tables in the *Ayén Acberì*, (vol. iii. p. 94.) where a *tánc* of twenty-four *rettis*, fixed at ten barley-corns to the *retti*, contains two hundred and forty barley-corns; and a *máſha* of eight *rettis*, at ſeven and a half barley-corns each, contains ſixty *rettis*; conſequently four *máſhas* are equal to one *tanca*, as in the preceding table; and ſix jeweller's *rettis* are equal to eight double *rettis*, as uſed by goldſmiths.

The ſame author (GO'PA'LA BHATTA') obſerves, that weights are thus ſtated in aſtronomical books:

2 large barley-corns	=	1 ſeed of the *gunjà*.
3 *gunjàs*	=	1 *balla*.
8 *ballas*	=	1 *dharana*.
2 *dharanas*	=	1 *alaca*.
1000 *alacas*.	=	1 *dhatáca*.

The

The tale of ſhells, compared to weight of ſilver, may be taken on the authority of the *Lílavatì*.

20 *capardacas*, ſhells, or cowries	= 1 *cácíní*.
4 *cácíní*	= 1 *pana*, *cárſhápana*, or *carſhica*.
16 *para* (= 1 *purána* of ſhells)	= 1 *bherma* of ſilver.
16 *bhermas*	= 1 *niſhca* of ſilver.

It may be inferred that one ſhell is valued at one *ractìcà* of copper; one *pana* of ſhells at one *pana* of copper; and ſixty-four *panas*, at one *tólaca* of ſilver, which is equal in weight to one *pana* of copper. And it ſeems remarkable that the comparative value of ſilver, copper, and ſhells, is nearly the ſame at this time as it was in the days of BHA'SCARA *.

On the meaſures of grain GO'PA'LA BHATTA' quotes the authority of ſeveral *puránas*.

Varáha purána:	1 *muſhti*, or handful	= 1 *pala*.
	2 *palas*	= 1 *praſṛĭti*.
	8 *muſtis*	= 1 *cunchi*.
	8 *cunchis*	= 1 *puſhcala*.
	4 *puſhcalas*	= 1 *àd'haca*.
	4 *àd'hacas*	= 1 *dróna*.
Bhawiſhya purána:	2 *palas*	= 1 *praſṛĭti*.
	2 *praſṛĭtìs*	= 1 *cudava*.
	4 *cudavas*	= 1 *praſtha*.
	4 *praſthas*	= 1 *àd'haca*.
	4 *àd'hacas*	= 1 *dróna*.
	2 *drónas*	= 1 *cumb'ha*, or *ſúrpa*.
	16 *drónas*	= 1 *c'hárì*, or *ſhárì*.
Padme Purána:	4 *palas*	= 1 *cudava*.
	4 *cudavas*	= 1 *praſt'ha*.
	4 *praſt'has*	= 1 *àd'haca*.
	4 *àd'hacas*	= 1 *dróna*.
	16 *drónas*	= 1 *c'hárì*.
	20 *drónas*	= 1 *cumb'ha*.

* The comparative value of ſilver and copper was the ſame in the reign of ACBER; for the *dám*, weighing five *tancs*, or twenty *máſhas*, of copper, was valued at the fortieth part of the *Jeláli rupiya*, weighing twelve *máſhas* and a half of pure ſilver; whence we have again the proportion of ſixty-four to one.

10 *cumb'has*

	10 *cumb'has*	= 1 *báha*, or load.
Scanda purána:	2 *palas*	= 1 *praſriti.*
	2 *praſritis*	= 1 *cudava.*
	4 *cudavas*	= 1 *praſt'ha.*
	4 *praſt'has*	= 1 *àd'haca.*
	4 *àd'hacas*	= 1 *dróna.*
	2 *drónas*	= 1 *cumb'ha* according to ſome.
	20 *drónas*	= 1 *cumb'ha* according to others.

From theſe may be formed two Tables. The firſt coincides with texts of the *Varáha purána*, and is preferred by RAGHUNANDANA. The ſecond, formed on the concurrent authority of the *Bhawiſhya*, *Padme* and *Scanda puránas*, is adopted in the *Calpateru*; rejecting, however, the *cumb'ha* of two *drónas*, and making the *pala* equal to the weight of three *tólacas* and a half.

TABLE I.

8 *muſhtis*, or handfuls,	= 8 *palas* = 4 *praſritis* = 1 *cunchi.*
8 *cunchis*	= 1 *puſhcala.*
4 *puſhcalas*	= 1 *àd'haca.*
4 *àd'hacas*	= 1 *dróna.*
20 *drónas*	= 1 *cumb'ha.*

TABLE II.

4 *palas* = 2 *praſritis*	= 1 *cudava* or *ſéttiká*	14 *tólas.*
4 *cudavas*	= 1 *praſt'ha*	56 ——
4 *praſt'has*	= 1 *àd'haca*	224 ——
4 *àd'hacas*	= 1 *dróna*	896 ——
20 *drónas*	= 1¼ *c'hárìs* = 1 *cumb'ha*	17,920 ——
10 *cumb'has*	= 1 *báha*	179,200 ——

But ſome make two *drónas* equal to one *cumb'ha.*

Would it be unreaſonable to derive the Engliſh coomb of four buſhels from the *cumb'ha* of the *Hindus?* The *c'hárì*, ſubſequently deſcribed, contains 5832 cubick inches, if the cubit be taken at eighteen inches. It would conſequently be equal to two buſhels, two pecks, one gallon, and two thirds; and the *cumb'ha*, equal to one *c'hárì* and a quarter, will contain three buſhels and three gallons nearly. According to LACSHMI'DHERA's valuation of the *pala*, at three *tólacas* and a half, the *c'hárì* weighs 14,336 *tólacas*, or 215lb. avoirdupois nearly; and the *cumb'ha* 17,920 *tólacas*, or 268lb. which correſponds nearly to the weight of a coomb of good wheat; and a *báha* will be nearly equal to a wey, or a ton in freight.

The

The name of *ſétticá* for the fourth of a *praſt'ha* is aſſumed from the *Varáha purána*; and HEMA'DRI accordingly declares it ſynonymous with *cudava*. The *Calpateru*, *Smrĭtiſara*, *Retnácara*, and *Samayapradipa*, alſo make the *ſétticá* equal to the *cudava*, or a quarter of the *praſt'ha*; but it contains twelve *praſrĭti* according to theſe commentaries, and the *praſrĭti* is deſcribed in the *Dánacánda*, by LACSHMI'DHERA, author of the *Calpateru*, as the quantity held in both hands by a man of the common ſize. Twelve ſuch handfuls fill a *cudava*, deſcribed as a veſſel four fingers wide, and as many deep, which is uſed in meaſuring *ſmall* wood, canes, iron, and other things. But VA'CHESPATIMISRA adopts this *cudava* of twelve *praſrĭtis*, whence we have a third Table of legal Meaſures in general uſe.

TABLE III.

12 double handfuls	= 1 *cudava*.
4 *cudavas*	= 1 *praſt'ha*.
4 *praſt'has*	= 1 *àd'haca*.
4 *àd'hacas*	= 1 *dróna*.
20 *drónas*	= 1 *cumb'ha*.

Beſides the difference already noticed on the ſubject of the *cumb'ha*, commentators have ſuggeſted wider differences. According to CULLU'CA BHATTA', it contains twenty *drónas*; but this *dróna* contains two hundred *palas*.

In the *Dána vivéca* the *cumb'ha* is ſtated at one thouſand *palas*; in the *Retnácara*, at twenty *praſt'has*. But, according to JA'TU'CARNA, five hundred and twelve *palas* only conſtitute a *cumb'ha*. This may be the ſame quantity with the *dróna*, as a meaſure or weight eſtimated by the hand. It ſhould conſiſt of four *àd'hacas*, each equal to four *praſt'has*; and each of theſe weighing according to the *At'harva véda*, thirty-two *palas* of gold. This again ſeems to be the *praſt'ha* of MAGAD'HA, deſcribed by GO'PATHA BRA'HMANA.

4 *crĭſhnalas*	= 1 *máſha*.
64 *máſhas*	= 1 *pala*.
32 *palas*	= 1 *praſt'ha*, as uſed in MAGAD'HA.

Since the *pala* of gold weighs 420 troy grains, the *praſt'ha* contains one pound avoirdupois, fourteen ounces and three quarters nearly. The *dróna*, laſt mentioned, contains 30 lb. 11 oz. and a fraction; and a *cumb'ha* of twenty ſuch *drónas*, 614 lb. 6 oz. and a half nearly.

The meaſures of grain in common uſe, are probably derived from the ancient

cumb'ha

cumb'ha and *dróna*; but their names are not ſuggeſted by any of the preceding Tables. Twenty *cát'hás* make one *bísí*; and ſixteen *bísís* one *pautí*. The ſize of the *cát'há* varies in different diſtricts; in ſome containing no more than two and a half *ſér* of rice; in others five *ſér*, (80 ſicca weight;) or *even more*. In the ſouthern diſtricts of Bengal, a meaſure of grain is uſed which contains one *ſér* and a quarter. It is called *réc*. Four *récs* make one *páli*; twenty *pális*, one *ſoli*; and ſixteen *ſolis*, one *cáhen*.

The *Vrĭhat Rájamartanda* ſpecifies meaſures which do not appear to have been noticed in other *Sanſcrit* writings.

24 *tólacas* = 1 *ſér*.
2 *ſér* = 1 *prabh*.

It is mentioned in the *Ayén Ackberí*, that the *ſér* formerly contained eighteen *dáms* in ſome parts of *Hinduſtán*, and twenty-two *dáms* in others; but that it conſiſted of twenty-eight *dáms* at the commencement of the reign of ACBER, and was fixed by him at thirty *dáms*. The *dám* was fixed at five *táncs*, or twenty *máſhas*; or, as ſtated in one place, twenty *máſhas* and ſeven *rettis*. The ancient *ſér*, noticed in the *Ayén Ackberí*, therefore, coincided nearly with the *ſér* ſtated in the *Rájamartanda*. The double *ſér* is ſtill uſed in ſome places, but called by the ſame name *(panchaſéri)* as the weight of five *ſér* uſed in others.

For meaſures uſed in *Mit'hila*, and ſome other countries, we have the authority of CHANDE'SUARA, in the *Bála bhúſhana*. They differ from the ſecond table, interpoſing a *mánica* equal to a fourth of a *c'hárí*, and making the *báha* equal to twenty *c'hárís*.

4 *palas*	=	1 *cudava*.
4 *cudavas*	=	1 *praſt'ha*.
4 *praſt'has*	=	1 *àd'haca*.
4 *àd'hacas*	=	1 *dróna*.
4 *drónas*	=	1 *mánica*.
4 *mánicas*	=	1 *c'hárí*.
20 *c'hárís*	=	1 *báha*.

GOPA'LA BHATTA' ſtates another ſet of meaſures, without furniſhing a compariſon to any determinate quantity otherwiſe known.

4 *áyus*	=	1 *s'ácſha*.
4 *s'ácſhas*	=	1 *bilwa*.
4 *bilwas*	=	1 *cudava*.

4 *cudavas*

4 *cudavas*	= 1 *praſt'ha.*
4 *praſt'has*	= 1 *c'hárì.*
4 *c'hárìs*	= 1 *gónì.*
4 *gónìs*	= 1 *drónicá.*

I have already quoted a compariſon of the *cudava* to a practical meaſure of length; and we learn from the *Lílávatì*, that the *c'hárì*, or *c'hárìca*, of MAGAD'HA, ſhould be a cube meaſured by one cubit. "A veſſel meaſured by a cubit, in every "dimenſion, is a *ghanahaſta*, which, in MAGAD'HA is called *c'hárìca*: it ſhould be "made with twelve corners, *or angles formed* by *ſurfaces*; *(that is, it ſhould be "made in the form of a ſolid, with ſix faces.)*

"The *c'hárìca* of UTCALA is in general uſe on the ſouth of the river *Gódáveri*: "there the *dróna* is the ſixteenth part of a *c'hárì*; (as in the Second Table;) the "*àd'haca* the fourth of a *dróna*; the *praſt'ha*, the fourth of an *àd'haca*; and the "*cudava*, a quarter of a *praſt'ha*. But the *cudava*, formed like a *ghanahaſta*, "ſhould be meaſured by three fingers and a half in every dimenſion. This veſſel "muſt be made of earth, or ſimilar materials; for ſuch alone is a *cudava*."

Both by this ſtatement, and by the Second Table, a *c'hárì* conſiſts of 1026 *cudavas*; and ſince the cubit muſt be taken at twenty-four fingers, or *angulas*, a ſolid cubit will contain 13,824 cubick *angulas* or fingers; and one *cudava* thirteen and a half cubick *angulas*. Its ſolid contents, therefore, are the half of a cube whoſe ſide is three fingers. A ſlight change in the reading would make the deſcription quoted from the *Lílávatì* coincide with this computation; and the *c'hárìca* of UTCALA and MAGAD'HA would be the ſame.

However, LACSHMI'DHERA has deſcribed the *cudava* as a veſſel four fingers wide, and as many deep, which makes a *cudava* of ſixty-four cubick *angulas*, or twenty-ſeven cubick inches. This will exhibit an *àd'haca* of 432 inches, ſimilar to a dry meaſure uſed at Madras, which is ſaid to contain 423 cubick inches, and is the eighth part of a *marcal* of 3384 cubick inches, or nearly double the *dróna* of 1728 cubick inches. If the *cudava* of UTCALA be a cube whoſe ſide is three and a half fingers, containing forty-three cubick *angulas* nearly, or eighteen cubick inches and a fraction, the *c'hárìca* of UTCALA contains 44,118 cubick *angulas*, or 18,612 cubick inches, taking the cubit at eighteen inches.

On the meaſures of ſpace, GO'PA'LA BHATTA' quotes a text from *Vriddha* MENU, which traces theſe from the ſame minute quantity as weights.

8 *traſarénus*	= 1 *rénu.*

8 *rénus*	= 1 *bálágra*, or hair's point.
8 *bálágras*	= 1 *licſha*, or poppy ſeed.
8 *licſhas*	= 1 *yúca*.
8 *yúcas*	= 1 *yava*, or very ſmall barley-corn.
8 *yavas*	= 1 *angula*, or finger.

From this MENU proceeds to longer meaſures.

12 *angulas*, or fingers,	= 1 *viteſti*, or ſpan.
2 *viteſtis*, or ſpans,	= 1 *heſta*, or cubit.

In the MA'RCANDE'YA *purána* meaſures are traced from atoms.

8 *paramánus*, or atoms,	= 1 *para ſucſhma*, moſt minute ſubſtance.
8 *para ſucſhmas*	= 1 *traſarénu*.
8 *traſarénus*	= 1 *mehirajaés*, grain of ſand or duſt.
8 grains of ſand	= 1 *bálágra*, or hair's point.
8 *bálágras*	= 1 *licſha*.
8 *licſhas*	= 1 *yúca*.
8 *yúcas*	= 1 *yava*.
8 *yavas*	= 1 *angula*, or finger.
6 fingers	= 1 *pada*, or breadth of the foot.
2 *padas*	= 1 *viteſti*, or ſpan.
2 ſpans	= 1 cubit *(heſta.)*
2 cubits	= the circumference of the human body.
4 cubits	= 1 *dhanuſh*, *denda*, or ſtaff.
2 *dendas*	= 1 *naricá* (or *nàdì.)*

In another place the ſame *purána* notices two meaſures, one of which is often mentioned in rituals:

21 breadths of the middle of the thumb	= 1 *retni*.
10 ditto - - - - - -	= 1 *pradeſya*, or ſpan, from the tip of the thumb to the tip of the fore-finger.

But, according to the *Calpateru*, it ſhould be ten breadths of the thumb and a half. And we learn from the ADITYA *purána*, that, according to VYA'SA, it ſhould be meaſured by the breadth of the thumb at the tip. The ſame *purána* makes two *retnis* (or 42 thumbs) equal to one *ciſhu*: but HA'RI'TA compares the *ciſhu* to the cubit, four of which it contains, according to his ſtatement: and four *ciſhus* make one *nalwa*. Here again the ADITYA *purána* differs, making the *nalwa* to contain thirty *dhanuſh*. It concurs with authorities above cited, in the meaſures

meaſures of the cubits *denda* and *nádì*; the firſt containing twenty-four fingers; the ſecond ninety-ſix fingers; and the *nádì* two *dendas*.

The ſame *purána* notices the larger meaſures of diſtance.

2000 *dhanuſh*		= 1 *króſa*.
2 *króſas*		= *gavyuti*.
8000 *dhanuſh*	= *gavyutis*	= 1 *yójana*.

On one reading of the VISHNU *purána*, the *króſa* contains only one thouſand *dhanuſh*. Accordingly GO'PA'LA BHATTA' quotes a text, which acquaints us that "Travellers to foreign countries compute the *yójana* at four thouſand "*dhanuſh*:" but he adduces another text, which ſtates the meaſures of the *króſa*, *gavyuti*, and *yójana*, as they are given in the ADITYA *purána*. The *Lílávatì* confirms this computation.

8 barley-corns	= 1 finger's breadth.
24 fingers	= 1 *heſta*, or cubit.
4 cubits	= 1 *denda* (= 1 *dhanuſh*.)
2000 *dendas*	= 1 *króſa* *.
4 *króſas*	= 1 *yójana*.

The *Lílávatì* alſo informs us of the meaſures uſed for arable land, which are ſimilar to thoſe now in uſe.

10 hands	= 1 *vanſa*, or bamboo cane.
20 *vanſas* (in length and breadth)	= 1 *niranga* of arable land.

Diviſions of time are noticed in the firſt chapter of MENU, (v. 64.)

18 *nimeſhas*, or the twinklings of an eye,	= 1 *cáſht'hà*.
30 *cáſht'hàs*	= 1 *calá*.
30 *calas*	= 1 *cſhana*.
12 *cſhanas*	= 1 *muhúrta*.
30 *muhúrtas*	= 1 day and night, (according to mean ſolar time.)

From this he proceeds to the diviſions of the civil year.

15 days and nights *(ahórátra)* = 1 *pacſha*, or interval between the ſizygies.
firſt and laſt *pacſha* = 1 month.

* If the cubit be taken at eighteen inches, then 4000 yards=1 ſtandard *króſa*=2 miles and a quarter nearly: and 2000 yards=1 computed *króſa*=1 mile and one eighth: and MAJOR RENNEL ſtates the *krós* as fixed by ACBER at 5000 *gez*=4757 yards=2 Britiſh miles and 5 furlongs; and the average common *krós* at one mile ſtatute and nine tenths.

2 months

2 months	= 1 ſeaſon *(rĭtu)*
3 ſeaſons	= 1 *ayana* (half year)
2 *ayanas*	= 1 year.

According to the *Súrya Siddhánta.*

6 reſpirations *(práná)*	= 1 *vicalà.*
60 *vicalàs*	= 1 *danda.*
60 *dandas*	= 1 ſydereal day.

The VISHNU *purána* ſtates a mode of ſubdividing the day, on which GO'PALA' BHATTA' remarks, that "it is founded on aſtronomy," and ſubjoins another mode of ſubdiviſion.

Ten long ſyllables are uttered in one reſpiration *(práná.)*

6 reſpirations	= 1 *vinàdicà.*
60 *vinàdicàs*	= *dhatà.*
60 *dhatàs*	= 1 day and night, (or ſolar day.)

Proceeding to another Table, he ſays, the time in which ten long ſyllables may be uttered is equal to one reſpiration.

6 reſpirations	= 1 *pala.*
60 *palas*	= 1 *ghatícà.*
60 *ghatícàs*	= 1 day and night.
30 days and nights	= 1 month.
12 months	= 1 year.

The VARA'HA *purána* concurs with the *Súrya Siddhánta* in another ſubdiviſion of time.

60 *cſhanas*	= 1 *lava.*
60 *lavas*	= 1 *nimésha.*
60 *niméshas*	= 1 *cáſt'hà.*
60 *cáſt'hàs*	= 1 *atipala.*
60 *atipalas*	= 1 *vipala.*
60 *vipalas*	= 1 *pala.*
60 *palas*	= 1 *danda.*
60 *dandas*	= a night and day.
60 nights and days	= 1 *rĭtu*, or ſeaſon.

But the BHAWISHYA *purána* ſubdivides the *nimésha* otherwiſe.

1 twinkling of the eye while a man is eaſy and at reſt	= 30 *tatpanas*, or moments.

1 *tatpana*

1 *tatpana*	=	100 *trutis.*
1 *truti*	=	1000 *ſamcramas.*

RAGHUNANDANA, in the *Jyótiſhatatwa*, gives a rule for finding the planets which preſide over hours of the day, called *hórá*. " Doubling the *ghatis* elapſed " from the beginning of the day (or ſun-riſe at the firſt meridian) and dividing " by five, the product ſhews the elapſed hours, or *hórás*. The ſixth planet, " counted from that which gives name to the propoſed day, rules the ſecond hour. " The ſixth counted from this rules the third; and ſo on for the hours of the " day: but every fifth planet is taken for the hours of the night." The order of the planets is ☾ ☿ ♀ ☉ ♂ ♃ ♄; conſequently on a *Sunday* the regent of the ſeveral hours of the day and night are:

Day	1	2	3	4	5	6	7	8	9	10	11	12
	☉	♀	☿	☾	♄	♃	♂	☉	♀	☿	☾	♄
Night	1	2	3	4	5	6	7	8	9	10	11	12
	♂	♀	☾	♃	☉	☿	♄	♂	♀	☾	♃	☉

As the days of the week are found by taking every fourth in the ſame ſeries, we might proceed by this rule to the firſt *hórá* of the ſubſequent day, whoſe regent, the fourth from ☉, is ☾; and thence proceed by the above-mentioned rule to the regents of *hórás* for *Monday*.

I ſubjoin the original paſſage, which was communicated to me by Mr. DAVIS, and add a verbal tranſlation.

বাৰপ্ৰবৃত্তে ঘটিকাদ্বিনিঘ্নাঃ কালাখ্য গোৰাপতমঃ শৰাপ্তাঃ।
দিনে নিজাঘা মত্তবাণবৃত্ত্যা নিজাহনাথা পেতমঃ পকল্প্যাঃ॥
ৰেখাপৰ্ব্বা পৰমো ৰ্ব্বনৰঃ সমোদ্যা পৌৰস্তা পৌক।
দেশান্তৰ যোজ্যমিত বিঘটীতিঃ পাদহীনাদ্ভিঃ॥ ১॥

" The *ghatìcas elapſed* from the beginning of the day being doubled, and divided " by (five) arrows, *ſhew* the cords of time called *hórá*. In the day theſe cords are " regulated by intervals of (ſix) ſeaſons, counted from the particular regent of the " day *propoſed*; in the night by intervals of (five) arrows.

" The *commencement of the day*, at preceding or ſubſequent meridians, before or " after ſun-riſe, *at the firſt meridian*, *is known* from the interval of countries, *or*

" *diſtance*

" *diſtance in longitude* meaſured by *yójanas*, and reduced into *ghatis*, after deducting " a fourth *from the number of yójanas*."

The coincidence of name for the hour, or twenty-fourth part of the day, is certainly remarkable. But until we find the ſame diviſion of time noticed by a more ancient author than RAGHUNANDANA, it muſt remain doubtful whether it may not have been borrowed from *Europe* in modern times.

VII.

OF THE CITY OF PEGUE, AND THE TEMPLE OF SHOEMADOO PRAW.

By Captain MICHAEL SYMES.

THE limits of the ancient city *Pegue* may ſtill be accurately traced by the ruins of the ditch and wall that ſurrounded it. From theſe it appears to have been a quadrangle, each ſide meaſuring about a mile and a half. In ſeveral places the ditch is nearly filled by rubbiſh that has been caſt into it, or the falling in of its own banks: ſufficient, however, ſtill remains to ſhew that it once was no contemptible defence. The breadth I judged to be about 60 yards, and the depth ten or twelve feet; except in thoſe places where it is choaked up from the cauſes I have mentioned. There is ſtill enough of water to impede a ſiege; and I was informed, that when in repair, it ſeldom, in the hotteſt ſeaſon, ſunk below the depth of four feet.

The fragments of the wall likewiſe prove that this was a work of conſiderable magnitude and labour. It is not eaſy to aſcertain preciſely what was its exact height; but we conjectured it to have been at leaſt twenty-five feet; and in breadth at the baſe, not leſs than forty. It is compoſed of brick, badly cemented with clay mortar. Small equidiſtant baſtions, about 300 yards aſunder, are ſtill diſcoverable: but the whole is in a ſtate ſo ruinous, and ſo covered with weeds and briars, that it requires cloſe inſpection to determine the extent and nature of the defences.

In the center of each ſide there is a gateway, about thirty feet wide. Theſe gateways were the principal entrances. The paſſage acroſs the ditch is on a mound

of

of earth, which ſerves as a bridge; and was formerly defended by a retrenchment, of which there are now no traces.

Nothing can exhibit a more ſtriking picture of deſolation than the inſide of theſe walls. ALOMPRAW, when he carried the city by aſſault in the year 1757, razed every dwelling to the ground, and diſperſed or led into captivity all the inhabitants. The pagodas, or praws, which are very numerous, were the only buildings that eſcaped the fury of the conquerors; and of theſe the great pagoda of SHOEMADOO has alone been attended to, and repaired. After the demolition of the city, ALOMPRAW carried the captive monarch with his family to *Ava*, where he remained many years a ſtate priſoner. YANGOON, or RANGOON, founded about this time, was by a royal mandate conſtituted the ſeat of provincial government, and *Pegue* entirely abandoned.

The preſent king of the *Birmans*, whoſe government has been leſs diſturbed than that of any predeceſſor of his family, entirely altered the ſyſtem which had been adopted by his father, and obſerved during the ſucceſſive reigns of his two brothers, NAMDOGE PRAW, and SEMBAUN PRAW, and of his nephew CHENGUZA. He has turned his attention to the population and improvement, rather than the extenſion, of his dominions; and ſeems more deſirous to conciliate his new ſubjects by mildneſs, than to rule them through terror. He has abrogated ſeveral ſevere penal laws, impoſed upon the *Taliens* or *Peguers:* juſtice is now diſtributed impartially; and the only diſtinction at preſent between a *Birman* and *Talien*, conſiſts in the excluſion of the latter from all public offices of truſt and power.

No act of the *Birman* government is more likely to reconcile the *Taliens* to the *Birman* yoke, than the reſtoration of their ancient place of abode, and the preſervation and embelliſhment of the pagoda of SHOEMADOO. So ſenſible was the King of this, as well as of the advantages that muſt accrue to the ſtate from an increaſe of culture and population, that five years ago he iſſued orders to rebuild Pegue, encouraged new ſettlers by liberal grants, and invited the ſcattered families of former inhabitants to return and repeople their deſerted city.

The better to effect this purpoſe, his *Birman* Majeſty, on the death of TAOMANGEE, the late *Mayoon*, or Viceroy, which happened about five years ago, directed his ſucceſſor, MAIN LLA NO RETHEE, to quit Rangoon, and make Pegue his future reſidence, and the ſeat of provincial government of the thirty-two provinces of *Henzawuddy*.

Theſe

Theſe judicious meaſures have ſo far ſucceeded, that a new town has been built within the ſite of the ancient city; but Rangoon poſſeſſes ſo many ſuperior advantages, and holds out ſuch inducements to thoſe who wiſh to dwell in a commercial town, that adventurers do not reſort in any conſiderable numbers to the new colony. The former inhabitants are now nearly extinct, and their families and deſcendants ſettled in the provinces of *Tanghoo*, *Martaban*, and *Talowmeou*; and many live under the protection of the *Siameſe*. There is little doubt, however, that the reſtoration of their favourite temple of worſhip, and the ſecurity held out to them, will, in the end, accompliſh the wiſe and humane intentions of the *Birman* Monarch.

Pegue, in its renovated ſtate, ſeems to be built on the plan of the former city. It is a ſquare, each ſide meaſuring about half a mile. It is fenced round by a ſtockade, from ten to twelve feet high. There is one main ſtreet, running eaſt and weſt, which is interſected at right angles by two ſmaller ſtreets, not yet finiſhed. At each extremity of the principal ſtreet there is a gate in the ſtockade, which is ſhut early in the evening. After that hour, entrance during the night is confined to a wicket. Each of theſe gates is defended by a ſorry piece of ordnance, and a few muſqueteers, who never poſt centinels, and are uſually aſleep. There are alſo two other gates on the north and ſouth ſides of the ſtockade.

The ſtreets of Pegue are ſpacious, as are the ſtreets in all *Birman* towns that I have ſeen. The road is carefully made with brick, which the ruins of the old town plentifully ſupply. On each ſide of the way there is a drain, that ſerves to carry off the water. The houſes even of the meaneſt peaſants of Pegue, and throughout all the Birman empire, poſſeſs an advantage over Indian dwellings, by being raiſed from the ground either on wooden poſts, or bamboos, according to the ſize of the building. The dwellings of the *Rahaans*, or prieſts, and higher ranks of people, are uſually elevated eight or ten feet; thoſe of the lower claſſes from two to four.

The houſes of the inhabitants of Pegue are far from commodious, agreeably to European notions of accommodation; but I think they are at leaſt as much ſo as the houſes of Indian towns. There are no brick buildings either in Pegue or Rangoon, except ſuch as belong to the King, or are dedicated to GAUDMA. The King has prohibited the uſe of brick or ſtone in private buildings, from the apprehenſion, I was informed, that, if people got leave to build brick houſes, they might erect brick fortifications, dangerous to the ſecurity of the ſtate. The houſes, therefore,

therefore, are all made of mats or ſheathing-boards, ſupported on bamboos or poſts. Being compoſed of ſuch combuſtible materials, the inhabitants are under continual dread of fire, againſt which they take every precaution. The roofs are lightly covered; and at each door ſtands a long bamboo, with a hook at the end, to pull down the thatch: alſo another pole, with a grating of ſplit bamboo at the extremity, about three feet ſquare, to ſuppreſs flame by preſſure. Almoſt every houſe has earthen pots of water on the roof. And there is a particular claſs * of people, whoſe buſineſs it is to prevent and extinguiſh fires.

The *Mayoon's* habitation is a good building, in compariſon with all the other houſes of Pegue. It is raiſed on poſts, ten feet high. There ſeems, from an outſide view, to be many apartments, beſides the hall in which he gives audience. It is in the centre of a ſpacious court, ſurrounded by a high fence of bamboo mats. There is in the hall, at the upper end, a ſmall elevation in the floor, on which the Viceroy ſits when he receives viſits in form.

The object in Pegue that moſt attracts and moſt merits notice, is, the Temple of SHOEMADOO †, or the *Golden Supreme*. This extraordinary edifice is built on a double terrace, one raiſed upon another. The lower and greater terrace is about ten feet above the natural level of the ground. It is quadrangular. The upper and leſſer terrace is of a like ſhape, raiſed about twenty feet above the lower terrace, or thirty above the level of the country. I judged a ſide of the lower terrace to be 1391 feet, of the upper 684. The walls that ſuſtained

* Theſe people are called *Pagwaat*. They are ſlaves of the government; men who have been found guilty of theft, and through mercy have had their lives ſpared. They are diſtinguiſhed by a black circle on each cheek, cauſed by punctuation: alſo by having on their breaſts, in BIRMAN characters, the word *Thief*; and the name of the article ſtolen; as on one (that I aſked an explanation of) *Putchoo Khoo*, or *Cloth Thief*.

Theſe men patrole the ſtreets at night, to put out fires and lights after a certain hour. They act as conſtables, and are the public executioners.

† *Shoe* is the *Birman* word for *golden*; and there can be little doubt that *Madoo* is a corruption of the *Hindu* MAHA DEVA or DEO. I could not learn from the *Birmans* the origin or etymology of the term; but it was explained to me as importing a *promontory that overlooked land and water*. *Praw* ſignifies *Lord*, and is always anneved to the name of a ſacred building. It is likewiſe a ſovereign and ſacerdotal title; and frequently uſed by an inferior when addreſſing his ſuperior. The analogy between the *Birmans* and the ancient *Egyptians*, in the application of this term, as well as in many other inſtances, is highly deſerving notice.

Phra was the proper name under which the *Egyptians* firſt adored the Sun, before it received the allegorical appellation of *Oſiris*, or author of Time. They likewiſe conferred it on their kings and prieſts. In the firſt book of MOSES, chap. xli. PHARAOH gives "JOSEPH to wife the daughter of *Potiphera*, or the Prieſt of ON." In the book of Jeremiah, a king of Egypt is ſtyled, "PHARAOH OPHRA." And it is not a very improbable conjecture, that the title PHARAOH, given to ſucceſſive kings of *Egypt*, is a corruption of the word *Phra*, or *Praw*; in its original ſenſe ſignifying the *Sun*, and applied to the ſovereign and the prieſthood, as the repreſentatives on earth of that ſplendid luminary.

the ſides of the terraces, both upper and lower, are in a ſtate of ruin. They were formerly covered with plaiſter, wrought into various figures. The area of the lower is ſtrewed with the fragments of ſmall decayed buildings; but the upper is kept free from filth, and in tolerably good order. There is a ſtrong preſumption that the fortreſs is coeval with this building; as the earth of which the terraces are compoſed, appears to have been taken from the ditch; there being no other excavation in the city, or its neighbourhood, that could have afforded a tenth part of the quantity.

Theſe terraces are aſcended by flights of ſtone ſteps, broken and neglected. On each ſide are dwellings of the *Rahaans*, or prieſts, raiſed on timbers four or five feet from the ground. Their houſes conſiſt only of a ſingle hall. The wooden pillars that ſupport them are turned with neatneſs. The roof is of tile, and the ſides of ſheathing-boards. There are a number of bare benches in every houſe, on which the *Rahaans* ſleep. We ſaw no furniture.

SHOEMADOO is a pyramid, compoſed of brick and plaiſter, with fine ſhell mortar, without excavation or aperture of any ſort; octagonal at the baſe, and ſpiral at top. Each ſide of the baſe meaſures 162 feet. This immenſe breadth diminiſhes abruptly; and a ſimilar building has not unaptly been compared in ſhape to a large ſpeaking trumpet *.

Six feet from the ground there is a wide ledge, which ſurrounds the baſe of the building; on the plane of which are fifty-ſeven ſmall ſpires, of equal ſize, and equidiſtant. One of them meaſured twenty-ſeven feet in height, and forty in circumference at the bottom. On a higher ledge there is another row, conſiſting of fifty-three ſpires, of ſimilar ſhape and meaſurement. A great variety of mouldings encircles the building; and ornaments, ſomewhat reſembling the fleur de lys, ſurround what may be called the baſe of the ſpire. Circular mouldings likewiſe gird this part to a conſiderable height; above which there are ornaments in ſtucco, not unlike the leaves of a *Corinthian* capital; and the whole is crowned by a *tee*, or umbrella of open iron-work, from which riſes an iron rod with a gilded penant.

The *tee*, or umbrella, is to be ſeen on every ſacred building in repair, that is of a ſpiral form. The raiſing and conſecration of this laſt and indiſpenſable appendage, is an act of high religious ſolemnity, and a ſeaſon of feſtivity and relaxation.

The preſent King beſtowed the *tee* that covers SHOEMADOO. It was made at the capital; and many of the principal nobility came down from *Ummerapoora* to be preſent at the ceremony of putting it on.

* Vide Mr. HUNTER's Account of *Pegue*.

The

The circumference of the *tee* is fifty-ſix feet. It reſts on an iron axis, fixed in the building, and is further ſecured by large chains, ſtrongly rivetted to the ſpire.

Round the lower rim of the umbrella are appended a number of bells, of different ſizes, which, agitated by the wind, make a continual jingling.

The *tee* is gilt; and it is ſaid to be the intention of the King to gild the whole of the ſpire. All the leſſer pagodas are ornamented with proportionable umbrellas, of ſimilar workmanſhip, which are likewiſe encircled by ſmall bells.

The extreme height of the building, from the level of the country, is 361 feet; and above the interior terrace, 331 feet. On the ſouth-eaſt angle of the upper terrace there are two handſome ſaloons, or *keouns*, lately erected. The roof is compoſed of different ſtages, ſupported by pillars. I judged the length of each ſaloon to be about ſixty feet, and the breadth thirty. The ceiling of one of them is already embelliſhed with gold leaf, and the pillars lacquered; the other is not yet completed. They are made entirely of wood. The carving on the outſide is very curious. We ſaw ſeveral unfiniſhed figures, intended to be fixed on different parts of the building; ſome of them not ill ſhapen, and many exceedingly groteſque. Splendid images of GAUDMA (the *Birman* object of adoration) were preparing, which we underſtood were deſigned to occupy the inſide of theſe *keouns*.

At each angle of the interior terrace is a pyramidical pagoda, ſixty-ſeven feet in height, reſembling, in miniature, the great pagoda. In front of the one in the ſouth-weſt corner are four gigantic repreſentations, in maſonry, of PALLOO, or the *man-deſtroyer*, half beaſt, half human, ſeated on their hams, each with a large club on the right ſhoulder. The *Pundit* who accompanied me ſaid, that they reſembled the RAKUSS of the *Hindus*. They are guardians of the temple.

Nearly in the center of the eaſt face of the area are two human figures in ſtucco, beneath a gilded umbrella. One ſtanding, repreſents a man with a book before him, and a pen in his hand. He is called THAGIAMEE, the recorder of mortal merits, and mortal miſdeeds. The other, a female figure kneeling, is MAHA SUMDERE, the protectreſs of the univerſe, as long as the univerſe is doomed to laſt: but when the time of general diſſolution arrives, by her hand the world is to be overwhelmed, and deſtroyed everlaſtingly.

A ſmall brick building, near the north-eaſt angle, contains an upright marble ſlab, four feet high, and three feet wide, on which is a long and legible *Birman* inſcription. I was told it was a recent account of the donations of pilgrims.

Along

Along the north face of the terrace there is a wooden ſhed, for the convenience of devotees who come from a diſtance to offer up their prayers at SHOEMADOO.

On the north ſide of the great pagoda are three large bells, of good workmanſhip, ſuſpended near the ground, between pillars. Several deers' horns are ſtrewed around. Thoſe who come to pay their devotions, firſt take up one of the horns, and ſtrike the bell three times, giving an alternate ſtroke to the ground. This act, I was told, is to announce to the ſpirit of GAUDMA, the approach of a ſuppliant. There are ſeveral low benches near the bottom of the pagoda, on which the perſon who comes to pray places his offering, which generally conſiſts of boiled rice, a plate of ſweetmeats, or cocoa-nut fried in oil. When it is given, the devotee cares not what becomes of it. The crows and *pariah* dogs commonly eat it up in the preſence of the donor, who never attempts to prevent or moleſt the animals. I ſaw ſeveral plates of victuals devoured in this manner, and underſtood it was the caſe with all that were brought.

There are many ſmall pagodas on the areas of both terraces, which are neglected, and ſuffered to fall into decay. Numberleſs images of GAUDMA lie indiſcriminately ſcattered. A pious *Birman*, who purchaſes an idol, firſt procures the ceremony of conſecration to be performed by the *Rahaans*, then takes his purchaſe to whatever ſacred building is moſt convenient, and there places it either in the ſhelter of a *keoun*, or on the open ground before the temple: nor does he ever after ſeem to have any anxiety about its preſervation, but leaves the divinity to ſhift for itſelf.

Some of thoſe idols are made of alabaſter, which is found in the neighbourhood of the capital of the *Birman* dominions, and admits of a very fine poliſh.

On both the terraces are a number of white cylindrical flags *, which are uſed by the *Rahaans* alone, and are conſidered as emblematic of purity and their ſacred function. On the top of the ſtaff there is commonly the figure of a *henza*, or gooſe, the ſymbol both of the Birman and Pegue nations.

From the upper ledge that ſurrounds the baſe of SHOEMADOO, the proſpect of the country is extenſive and pictureſque; but it is a proſpect of nature in her rudeſt ſtate. There are few inhabitants, and ſcarcely any cultivation. The hills of *Martaban* riſe to the eaſtward; and the *Sitang* river, winding along the plains, gives

* Theſe flags are made of long ſtripes of white cloth, ſewed together at the ſides, and extended by hooks of thin bamboos.

here

here and there an interrupted view of its waters. To the north-north-weſt, above forty miles, are the *Galladzet* hills, whence the Pegue river takes its riſe; hills remarkable only for the noiſome effects of their atmoſphere. In every other direction the eye looks over a boundleſs plain, chequered by a wild intermixture of wood and water.

Previous to my departure from Pegue, I paid a viſit to the *Siredaw*, or ſuperior *Rahaan*, of the country. His abode was ſituated in a ſhady grove of tamarind trees, about five miles ſouth-eaſt of the city. Every object ſeemed to correſpond with the years and dignity of the poſſeſſor. The trees were lofty. A bamboo railing protected his dwelling from the attack of wild beaſts. A neat reſervoir contained clear water. A little garden gave him roots; and his retreat was well ſtocked with fruit-trees. A number of younger *Rahaans* lived with him, and adminiſtered to his wants with pious reſpect. Though extremely emaciated, he ſeemed lively, and in full poſſeſſion of his mental faculties. He ſaid his age was eighty-ſeven. The *Rahaans*, although ſupported by charity, never accept of money. I therefore preſented this venerable prelate of the order with a piece of cloth, which was repaid by a grateful benediction. He told me that, in the convulſions of the Pegue empire, moſt of their valuable records had been deſtroyed; but it was traditionally believed, that the temple of SHOEMADOO was founded two thouſand three hundred years ago, by two brothers, merchants, who came to Pegue from *Talowmeou*, one day's journey eaſt of *Martaban*. Theſe pious traders raiſed a pagoda of one *Birman* cubit, twenty inches and a half in height. SIGEAMEE, or the ſpirit that preſides over the elements, and directs the thunder and lightning, in the ſpace of one night, increaſed the ſize of the pagoda to two cubits. The merchants then added another cubit, which SIGEAMEE likewiſe doubled in the ſame ſhort time. The building thus attained the magnitude of twelve cubits, when the merchants deſiſted. That the pagoda was afterwards gradually increaſed by ſucceſſive monarchs of Pegue; the regiſters of whoſe names, and the amount of their contributions, had been loſt in the general ruin: nor could he inform me of any authentic archives that ſurvived the wreck.

Of the deficiency of the foregoing account of the city of Pegue, and the temple of SHOEMADOO, I am fully ſenſible. Authentic documents were not to be procured; and the ſtories related, in anſwer to oral enquiries, were too extravagant to merit attention. That Pegue was once a great and populous city, the ruins of buildings within the walls, and the veſtiges of its extenſive ſuburbs, ſtill extant, ſufficiently,

ſufficiently declare. Of the antiquity of SHOEMADOO there is no reaſon to doubt; and as a pile of building, ſingular in its conſtruction, and extraordinary for its magnitude, it may juſtly be numbered amongſt the moſt curious ſpecimens of oriental architecture.

VIII.

DESCRIPTION OF THE TREE CALLED BY THE BIRMAS LAUNZAN.

By FRANCIS BUCHANAN, *Eſq. M. D.*

BEFORE my ſetting out to accompany the late deputation to the court of *Ava*, I received ſome ſeeds, which had been ſent to SIR JOHN SHORE from *Pegue*. It was conceived that they might be uſefully employed to yield oil, with which they ſeemed to abound: I was therefore particular in making my inquiries after the plant producing them. I ſoon learned that they were produced only in the upper provinces of the kingdom; and, on my arrival there, I found myſelf ſtill at a diſtance from the tree on which they grow. It is ſaid only to be found on the mountains; and theſe I had no where an opportunity of examining. With ſome difficulty, however, I procured, whilſt at *Amerapoora*, ſome young ſhoots, with abundance of the flowers, and ſeveral young plants in a growing ſtate: and while at *Pagam*, on our return, I procured many branches with the young fruit. Unluckily, all the young plants died before I reached *Bengal*; otherwiſe, I believe, they might have been an acquiſition of ſome value. The tree is ſaid to be very lofty; and, from what I ſaw, muſt produce immenſe quantities of the fruit; as may readily be conceived from looking at the drawings; where it muſt be obſerved, that the fruit-bearing branch has had by far the greateſt part of its produce ſhaken off by the carriage. In times of plenty, little uſe is made of the fruit, except for yielding oil, as had been expected; and beſides, a ſmall quantity of the ſeeds are gathered, and ſent to all parts of the empire, where they are uſed for nearly the ſame purpoſes that almonds are amongſt us; but the demand in this way cannot be conſiderable.

It is in times of ſcarcity that the fruit becomes valuable. It is ſaid, when ripe,

to

to be red; and, like a peach, conſiſts of a ſucculent outer fleſh, containing a hard ſhell, in which there is a ſingle ſeed. The outer fleſhy part is ſaid to be agreeably acid, and ſafe to eat. When that is removed, the ſhells, by a ſlight beating, ſplit in two, and are thus eaſily ſeparated from the kernel. Theſe kernels taſte very much like a walnut; but are rather ſofter, and more oily. As they can, at thoſe places where the trees grow, be afforded very cheap, in times of ſcarcity they are carefully gathered; and, when boiled with a little rice or *Indian* corn, furniſh a great part of the food of the lower claſs of the natives.

I ſhall now add ſuch a botanical deſcription of the plant as will enable it to be reduced into the vegetable ſyſtem; although not in every reſpect complete, owing to my not having ſeen the tree or the ripe fruit. I believe it will be found to conſtitute a new genus; but I do not venture to give it a name, till the *European* botaniſts have aſcertained, whether or not it be reducible to any known genus of plants. In the botanical deſcription I uſe the *Latin* language; as I am not yet ſufficiently acquainted with the technical terms introduced into the *Engliſh* by the *Litchfield* Society, to uſe them with facility.

Character Eſſentialis. Cal. 1 phyll, petala 5, receptaculo inſerta, ſtam. 10, receptaculo inſerta. Nect. maximum, orbiculatum, 10 ſulcum, germen involvens. Styli 5, conniventes. Drupa monoſperma, nuce bivalvi. Habitat in montoſis regni Barmanorum.

Arbor elata ramis fuſcis nudis; ramulis foliоſis. Ramuli floriferi glabri, rubicundi, viridé-punctati; fructiferi rimoſi.

Folia approximata, alterna, petiolata, oblonga, baſi attenuata, integra, integerrima, retuſa, glabra, venis reticulata.

Fulcra, petiolus anceps, acutangulus, breviſſimus, glaber. Stipulæ, pubes, arma cirrhi nulla.

Inflorescentia. Paniculi axillares ad apices ramorum congeſti, laxi, nudi, foliis longiores, ramoſiſſimi; ramis teretibus, horizontalibus, ſparſis. Flores parvi, albidi, plurimi, pedicellati, ſparſi. Racemi fructiferi penduli, foliis multo longiores. Fructus rubri, aceſcenti-dulces.

Cal. perianthum proprium monophyllum, concavum, corollâ brevius, quinquefidum: laciniis obtuſis. Laciniæ calycis aliquando tres, ſæpius quatuor.

Cor. petala quinque, rarius ſex, receptaculo inſerta, ſeſſilia, ſublinearia, obtuſa, revoluta.

Nect.

Nect. Maximum, in centro floris orbiculatum, depreſſum, decem-ſtriatum, germen involvens.

Stam. Filamenta decem, ſubulata, erecta, petalis breviora, receptaculo inſerta, antheræ parvæ, ovatæ.

Piſt. Germen ſuperum. Nectario tectum. Styli quinque ſubulati, erecti, conniventes, longitudine ſtaminum, ſtigmata obtuſa.

Per. Drupa compreſſa, obovata, obtuſa, obtuſocarinata, unilocularis.

Sem. Nux unilocularis, compreſſa, ſub-bivalvis, dehiſcens; ſemen ſolitarium, hinc acutum, inde craſſum carinatum.

Affinis, ordine naturali, terminaliis proximus habitu, generi a Roxburgio *tſaroo mamaday* dicto, ſed nectaria diverſiſſima, characterem habet non nihil ſimilem generi altero, a Roxburgio *chitraca* dicto, ſed habitus diverſi; ſingularis eſt drupa monoſperma cum ſtylis quinque; ſimile aliquod tamen occurrit in genere Roxburgiano *odina*.

A *Saponaria* diverſum genus, drupâ unilocularí.

IX.

SPECIMEN OF THE LANGUAGE OF THE PEOPLE INHABITING THE HILLS IN THE VICINITY OF BHAGULPOOR.

Communicated in a Letter to the Secretary,

By Major R. E. Roberts.

PERCEIVING that the very full and ſatisfactory account of the people inhabiting the hills in the vicinity of *Bhagulpoor*, by Lieutenant Shawe, in the Fourth Volume of the *Aſiatick Reſearches*, is unaccompanied by any ſpecimen of their language, ſhould the following one be acceptable as a ſupplement to that account, or you deem it deſerving the notice of the Society, I ſhall be obliged by your laying it before them, as I can rely on the correctneſs of it.

Mr. Shawe having obſerved that theſe people have no writing character, I juſt beg

beg leave to add, that, when I was on duty at *Rajahmahl*, ſeveral years ago, a hill chief ſent a verbal meſſage to the commanding officer, expreſſing a wiſh to wait upon him. Being deſired to appoint a day for that purpoſe, he tranſmitted a ſtraw with four knots upon it, which was explained by the meſſenger who brought it to intimate, that his maſter would come on the fourth day.

The Head	Cook.	Cholick	Coochoohoogee.
Eyebrow	Cunmudbâ.	A Tiger	Toot.
Noſe	Moēē.	Dog	Alah.
Throat	Cuſſer.	An Ant	Choobah.
Armpit	Buddee puckda.	A Kite	Chunneeâdee.
Blood	Keeſs.	Paroquet	Apud.
A Finger	Angillee.	Fly	Teelcur.
The Breaſt	Bookah.	Bee	Ook.
Belly	Coochah.	Heaver	Surruncuſſa.
Loins	Cudmah.	Star	Badekah.
Back	Cookah.	Cloud	Badelee.
A Vein	Nâroo.	Cow	Ooee.
Toe	Cuddah Angillee.	Jackal	Cheecâloo.
Hair	Tullee.	Cat	Beerkah.
An Eye	Cun.	Cock	Noogeer.
Ear	Kydoob.	Crow	Câcah.
The Countenance	Treſoo.	Dove	Poorah.
Beard	Pâchoodee.	Pigeon	Cooteerah.
Throat	Tood.	Scorpion	Teelah.
Shoulder	Dupna.	Buffalo	Mung.
A Nail (of Finger)	Ooruk.	Hog	Keeſs.
A Lip	Boocootooda.	Deer	Chutteedah.
Navel	Cood.	Hen	Dooteegeer.
Buttock	Moodoocudmullâ.	Bat	Cheedgoo.
Liver	Cuckâlee.	Snake	Neer.
The Foot	Chupta.	Fiſh	Meen.
A Bone	Coochul.	Male, maſculine	Peechâlah.
Forehead	Neepee.	Sunſhine	Beer.
The Eyelaſh	Cunmeer.	Moonſhine	Beelah.
Cheek	Cullâ.	Lightning	Chudkah.
Chin	Kyboo.	Light	Abublee.
Tooth	Pul.	Earth	Kycul.
An Arm	Tât buddee.	A Stone	Châchah.
Breaſt of a Woman	Doodah.	An Arrow	Châr.
Heel	Teeknâ.	A Bone	Eedut.
Fleſh	Maak.	Fire	Chuchah.
A Fever	Meed.	Water	Oom.
Headache	Cooknogee.	Graſs	Doobah.

Food	Jacoo.
Bread	Putteeâ.
Cloth	Durjâ.
Black	Fudcooroa.
White	Cheen burroo.
Red	Kyſoo.
Yellow	Balcoo.
Rice	Teekeel.
Oil	Heeſcun.
A Turband	Doomee, Cocudee.
A Tree	Mun.
Linen Cloth	Lookâ.
Cold	Kaidah.
Heat	Oomee.
A Houſe	Adâ.
North	Colah.
South	Purrubmoha.
Weſt	Beerhotroo.
A Peacock	Choobah.
Sweet	Ameebade.
Bitter	Câdkah.
Sour	Seeteed.
Prayer, worſhip	Aydeeootee.
Hinduſtan	*Coler.*
Wheat	Gyhoom.
To ſleep	Cooda.
To beget, procreate	Keena.
To ſleep	Cunderco.
To go	Aycoocoo.
To tear	Aſeehee.
To ſqueeze, preſs out	Ayrcoo.
To grind	Tudyecâ.
To know, underſtand	Booje een.
To rub	Mâleeâ.
To break	Turrâ.
To ſound	Ahootee.
To laugh	Alkee.
To weep	Boolkee.
To pull, draw	Bundra.
A River	Abeen.
Salt	Beek.
A Cup	Coree
Below, under	Tuttâ.
A Tent Rope	Jumkâ.
High	Arkâ.
A Door	Dowaree.
A Flower	Kâdah.
Game (Beaſts of)	Cubbree.
An Ideot	Bootah.
The World	Oorahâ.
A Mat	Tâlee.
Before	Moodâhee.
Why	Pundreek.
Me, to me	Aykee.
This	Bhee.
Him	Naheen.
They	Nuckeed.
Ignorant	Oo cullee mulla.
Juſtice	Muzcoor.
Which	Chuchee.
A Liar	Puſſeearee.
A Rope, Cord	Meer.
A Hill	Tookah.
Sick	Chootah.
A Sheet	Chuppoodah.
Left (Hand or Side)	Akdo.
Crooked	Deeza.
Sand	Bâlah.
Accuſation, Complaint	Mâſee.
A Garment, Veſt	Joolee.
Phyſick	Bhudder.
A Saſh	Sujar.
A Mill	Mookah.

X.

AN ACCOUNT OF THE DISCOVERY OF TWO URNS IN THE VICINITY OF BENARES.

By JONATHAN DUNCAN, *Esq.*

I HEREWITH beg leave to deliver to the Society a Stone and a Marble Veſſel, found the one within the other, in the month of January, 1794, by the people employed by BABOO JUGGUT SING in digging for ſtones from the ſubterraneous materials of ſome extenſive and ancient buildings in the vicinity of a temple called *Sarnauth*, at the diſtance of about four miles to the northward of the preſent city of *Benares*.

In the innermoſt of theſe caſes (which were diſcovered after digging to the depth of eighteen *hauts*, or cubits, under the ſurface) were found a few human bones, that were committed to the *Ganges*, and ſome decayed pearls, gold leaves, and other jewels of no value, which cannot be better diſpoſed of than by continuing in the receptacle in which they muſt have ſo long remained, and been placed upon an occaſion on which there are ſeveral opinions among the natives in that diſtrict. The firſt, that the bones found along with them, may be thoſe of the conſort of ſome former Rajah or Prince, who having devoted herſelf to the flames on the death of her huſband, or on ſome other emergency, her relations may have made (as is ſaid not to be unprecedented) this depoſit of her remains as a permanent place of lodgment; whilſt others have ſuggeſted, that the remains of the deceaſed may have probably only been thus temporarily diſpoſed of, till a proper time or opportunity ſhould arrive of committing them to the *Ganges*, as is uſually obſerved in reſpect to theſe *puſhpa* or flowers; a term by which the *Hindus* affect to diſtinguiſh thoſe reſiduary veſtiges of their friends dying natural deaths, that are not conſumed by the fire, to which their corpſes are generally expoſed, according to the tenets of their religion.

But I am myſelf inclined to give the preference to a concluſion differing from either of the two former, viz. that the bones found in theſe urns muſt belong to one of the worſhippers of BUDDHA, a ſet of *Indian* heretics, who, having no reverence for the *Ganges*, uſed to depoſit their remains in the earth, inſtead of committing them to that river; a ſurmiſe that ſeems ſtrongly corroborated by the circumſtance of a ſtatue or idol of BUDDHA having been found in the ſame place under ground, and on the ſame occaſion with the diſcovery of the urns in queſtion, on which was an inſcription, as per the accompanying copy of the original, aſcertaining that a temple had between 7 or 800 years ago been conſtructed there for the worſhip of that deity.

Copy of the original Inscription referred to in the preceding Paper.

XI.

ACCOUNT OF SOME ANCIENT INSCRIPTIONS.

THE preſident lays before the Society a Fac Simile of ſome Ancient Inſcriptions, received from SIR CHARLES WARE MALLET. They were taken by MR. WALES, a very ingenious artiſt, who has employed himſelf in making deſigns of the excavations and ſculptures at *Ellura*, and other parts on the weſtern ſide of *India*. To the ingenuity of LIEUTENANT WILFORD, the Society is indebted for an explanation of the Inſcriptions. They are, as he obſerves, of little importance; but the publication of them may aſſiſt the labours of others in decypheriug more intereſting manuſcripts or inſcriptions. The following Extract of a Letter from LIEUTENANT WILFORD, containing his Tranſlation of the Inſcriptions, accompanies them.

I HAVE the honour to return to you the fac ſimile of the ſeveral inſcriptions, with an explanation of them. I deſpaired at firſt of ever being able to decypher them; for as there are no ancient inſcriptions in this part of *India*, we never had, of courſe, any opportunity to try our ſkill, and improve our talents, in the art of decyphering. However, after many fruitleſs attempts on our part, we were ſo fortunate as to find at laſt an ancient ſage, who gave us the key, and produced a book in *Sanſcrit*, containing a great many ancient alphabets formerly in uſe in different parts of *India*. This was really a fortunate diſcovery, which hereafter may be of great ſervice to us. But let us proceed.

Number II. and VI. are pure *Sanſcrit*; and the character, though uncouth, is *Sanſcrit* alſo.

The other numbers, viz. I. III. IV. and V. are written in an ancient vernacular dialect; and the characters, though very different from thoſe now in uſe, are nevertheleſs derived from the original or primæval *Sanſcrit*, for the elements are the ſame.

I have exhibited theſe numbers in one ſheet. The Inſcriptions are firſt written in their original dialect, but in *Sanſcrit* characters. To this is annexed a tranſlation in *Sanſcrit*; and both the original dialect and the *Sanſcrit* tranſlation are exhibited in *Engliſh* characters.

The

The numbers I. III. IV. and V. relate to the wanderings of YUDISHTIRA and the PANDOVAS through foreſts and uninhabited places. They were precluded, by agreement, from converſing with mankind; but their friends and relations, VIDURA and VYA'SA, contrived to convey to them ſuch intelligence and information as they deemed neceſſary for their ſafety. This they did by writing ſhort and obſcure ſentences on rocks or ſtones in the wilderneſs, and in characters previouſly agreed upon betwixt them. VYA'SA is the ſuppoſed author of the *Puránas*.

No. I.

Conſiſts of four diſtinct parts, which are to be read ſeparately. In the firſt part, (1,) either VIDURA or VYA'SA informs YUDISHTIRA of the hoſtile intentions of DURYODHEN.

" From what I have ſeen of him (DURYODHEN,) and after having fully conſi-
" dered (the whole tenor of his conduct,) I am ſatisfied that he is a wicked man.
" Keep thyſelf concealed, O chief of the illuſtrious!"

In the 2d part of No. I.

" Having firſt broken the ſtone (that cloſes thy cave) come here ſecretly, old
" man, that thou mayeſt obtain the object of thy deſire. Thy ſufferings vex me
" ſore."

In the 3d part of No. I.

" O, moſt unfortunate, the *wicked* is come."

In the 4th part of No. I.

YUDISHTIRA and his followers being exhauſted with their ſufferings, made overtures of peace through VIDURA and VYA'SA. They had at firſt ſome hope of ſucceſs, when ſuddenly an end was put to the negociation, and affairs took another turn. This piece of intelligence they conveyed to YUDISHTIRA in the following manner:

4th. " Another word."

This expreſſion, is an adverbial form, is ſtill in uſe to expreſs the ſame thing.

No. III.

" O, worthy man, O, *Hara hara*," (*Hara-hara*, the name of MAHADE'VA, twice expreſſed, is an exclamation uſed by people in great diſtreſs,) " aſcend into
" thy cave—Hence ſend letters—But into thy cave go ſecretly."

No. IV.

" Thou wilt ſoon perceive that they are leagued together, and that their bellies
" (appetites)

" (appetites) are the only rule of their conduct. Decline their friendſhip—See " the door of yon cave—Break it open, (and conceal thyſelf therein.")

No. V.

" Go into the town immediately—But do not mix with them—Keep thyſelf " ſeparate as the lotos (from the waters in which it floats.)—Get into the houſe " of a certain ploughman, and firſt remain concealed there; but afterwards keep " thyſelf in readineſs."

The two following numbers allude to the worſhip of BUDDHA.

No. II.

" Here is the ſtatute of SA'CYA-UDA'RACA, (now a form of BUDDHA,) but who was before a *Brahmacári*, called SRI'-SOHILA."

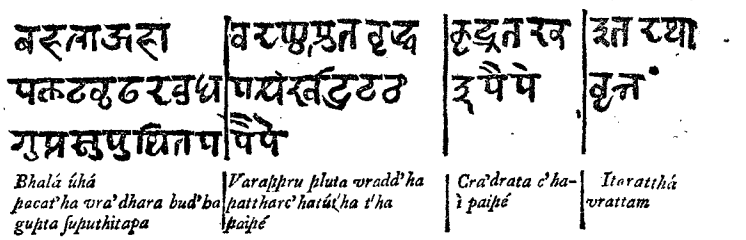
No. VI.

" SA'CYA-PA'DA'MRATA made this ſtatute."

My learned friends here inſiſt that theſe Inſcriptions were really written by the friends of YUDISHTÌRA. I doubt this very much. Theſe Inſcriptions certainly convey little or no information to us: ſtill our having been able to decypher them is a great point in my opinion, as it may hereafter lead to further diſcoveries, that may ultimately crown our labours with ſucceſs. Indeed, your ſending them to me has really been the occaſion of my diſcovering the above-mentioned Book, which I conceive to be a moſt fortunate circumſtance.

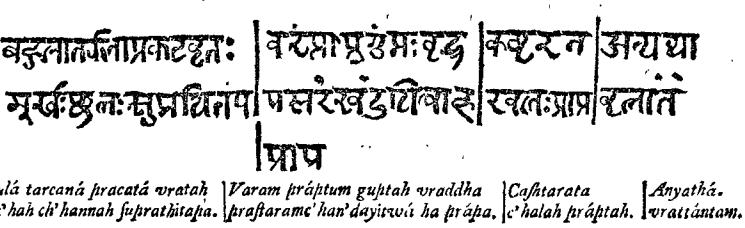
F. WILFORD.

No. I.



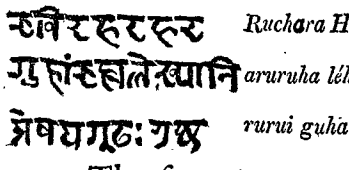
Bhalá úhá pacat'ha vra'dhara bud'ha gupta ſuputhitapa | *Varaſpru pluta vradd'ha patthare'hatú'ha t'ha paiſé* | *Cra'drata c'ha-ì paiſé* | *Itaratthá vrattam*

The ſame in *Sanſcrit*.



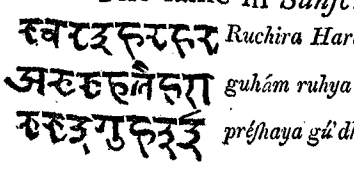
Bahulá tarcaná ſpracatá vratah múrc'hah ch'hannah ſuprathitapa. | *Varam práptum guptah vraddha praſtaramc'han'dayitwá ha prápa.* | *Caſhtarata c'halah práptah.* | *Anyathá. vrattántam.*

No. III.



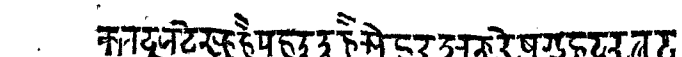
Ruchara Hara-hara
aruruha léhaé
rurui guha íi.

The ſame in *Sanſcrit*.



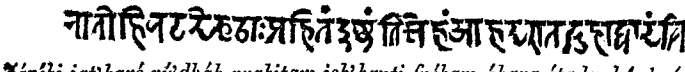
Ruchira Hara-hara
guhám ruhya lèc'hyáni
préſhaya gú'dhad gach'ha.

No. IV.



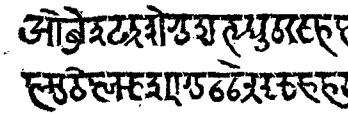
Cala-i jat'hé ruhahai paha-i thé ſnéharah aruré ſhaguhadara latá.

The ſame in *Sanſcrit*.



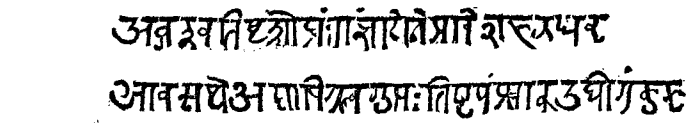
Jánihi jat'haré rú'dháh prahitam ich'hanti ſnéham áhara étadguhá dwáram lic'ha.

No. V.



Objé-i t'ha-i ſhégu ſahru d'hut'hara ruha hala ruha
haſuté hajé ru-i-è gud'ha te i raru haharacru.

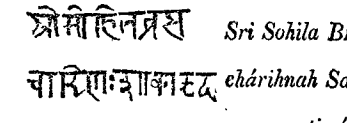
The ſame in *Sanſcrit*.



Abja iva tíſhta ſighram grámam jhatiti praviſahalad'hara
ávaſathé adyápi gatwá guptah tíſhta pas'chát udhyogam curu.

Pure *Sanſcrit*.

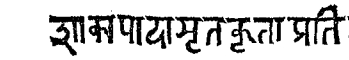
No. II.



Sri Sohila Brahma-
chárihnah Sacyáruda-
raca pratiméyam.

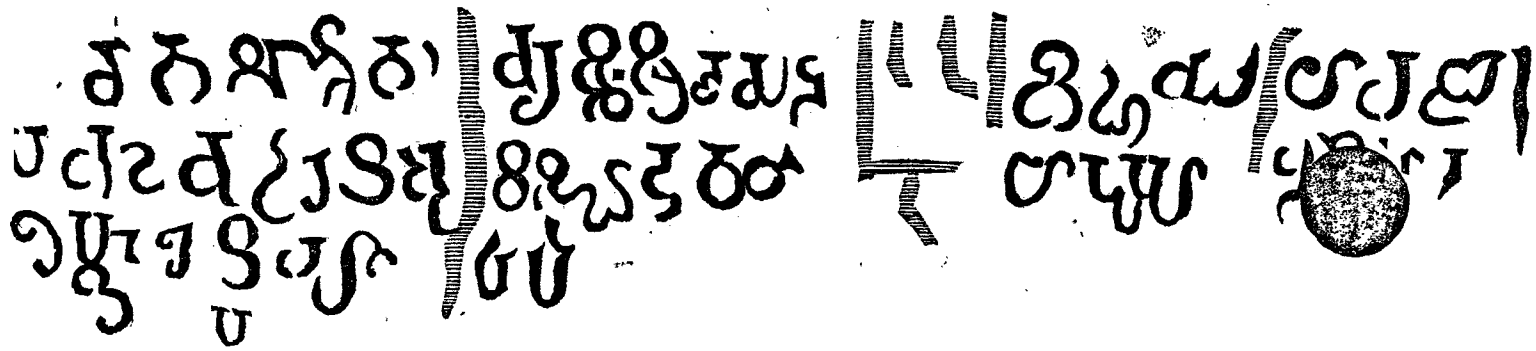
Pure *Sanſcrit*.

No. VI.

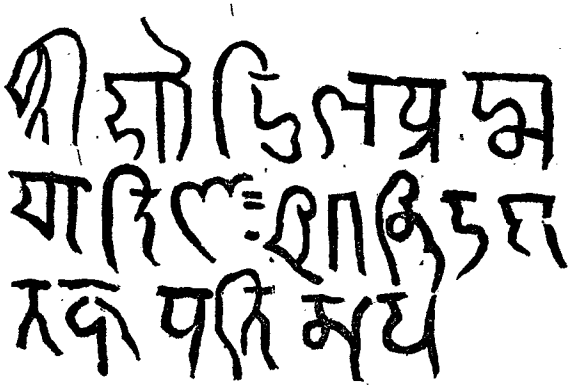


Sácya Pádámrata cratá pratimá.

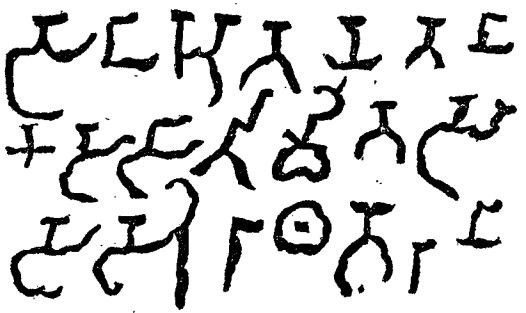
No. I. *From Verool* or *Ellora.*



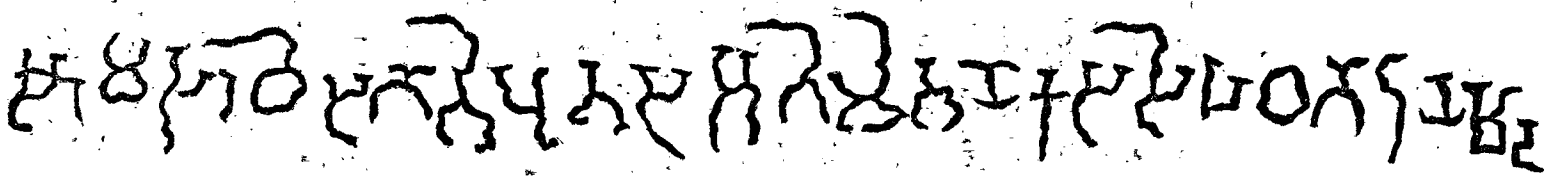
No. II. *Verool* or *Ellora.*



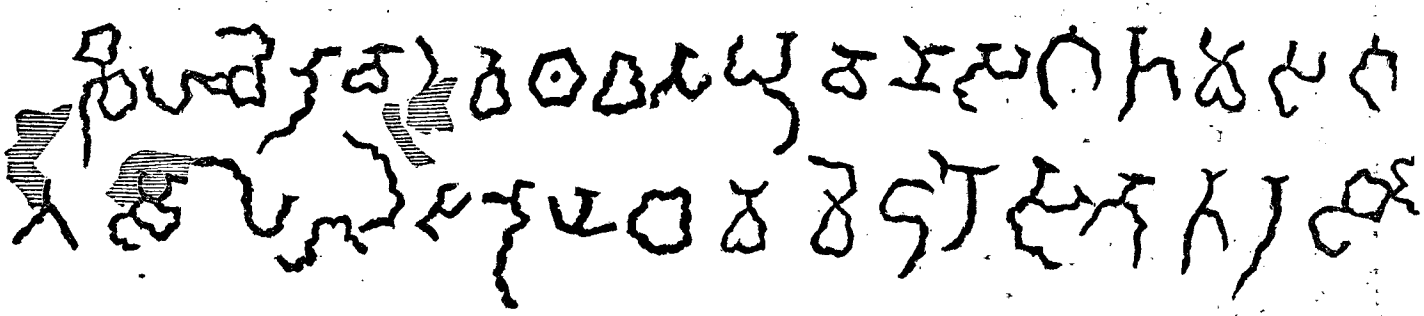
No. III. *Ekvira* or *Jehire.*



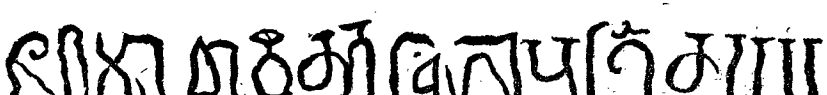
No. IV. *Ekvira* or *Jehire.*



No. V. *Salsette.*



No. VI. *Verool* or *Ellora.*

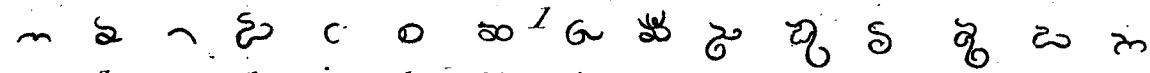


ae pa: 903.

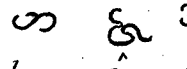
The Alphabetical System of the Language of AWĂ and RACHAIN

Plate I.

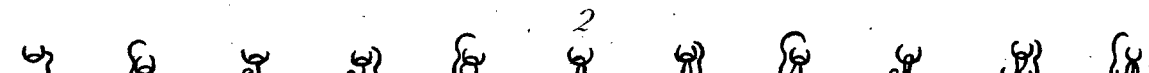
1



c	ch	g	ch	n	ch	ch'h	j	ch'h	ny	t	th	d	th	n
t	th	d	th	n	p	p'h	b	p'h	m	y	r	l	w	s
h	î	ă												

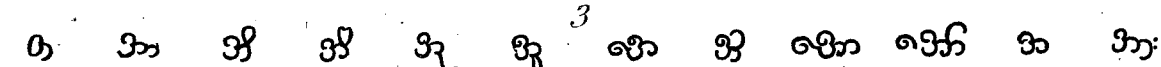


2



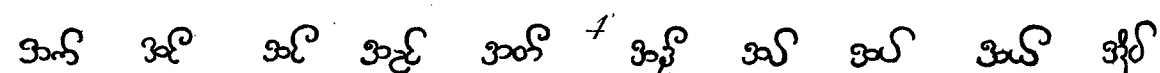
my	mr	hm	hmy	hmr	mw	myw	mrw	hmw	hmyw	hmrw

3



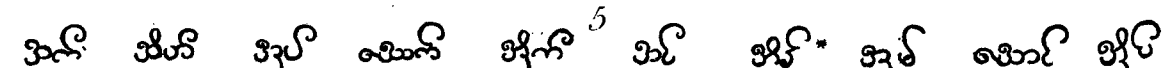
ă	ā	i	ì	u	ù	e	è	aò	ao	ăiñ	ā

4



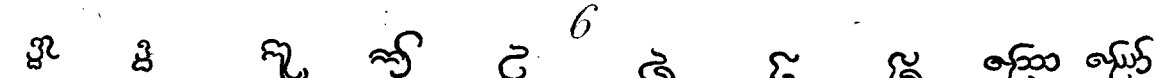
ăĉ	ăǹ,ăn	aiĉh	aiñ	ăit̂	ăiñ,ăiñ	ăip̂	ăim	e	ò,ọ	

5

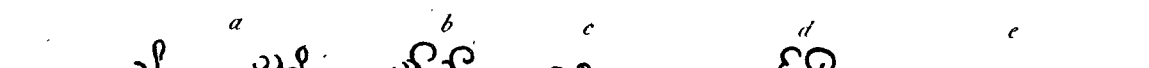


ăĉ	it	up̂	auĉ	aiĉ	ăn	in	um,un	aun	ain	

6



tha	thăiñ	i	i	u	à	e	é	aō	ao



a	b	c	d	e
zefŭmi:	fămi	ze,ruie	auĉ	fănbun
				cāimp'hā

XII.

OBSERVATIONS ON THE ALPHABETICAL SYSTEM OF THE LANGUAGE OF AWĂ AND RĂC'HAIN.*

By Captain JOHN TOWERS.

THE annexed *Plate* † is a ſpecimen of the Alphabet of the Language of *Awă* and *Răc'hain*, agreeably to the Arrangement adopted by the *Brăimmas* and *Mărămăs*, or Natives of thoſe Kingdoms.

To avoid tedious and perplexing reference, it was thought adviſable to place under each ſymbol its characteriſtic repreſentative in *Roman* letters. In doing this, more than common attention has been paid to preſerve the notation laid down in the elegant and perſpicuous "Syſtem and Diſſertation on the Orthography of *Aſiatick* Words in *Roman* Letters," commencing the firſt Volume of the Reſearches of the Society; at leaſt, as far as its typical arrangement correſponded with the ſyſtem under diſcuſſion; and where a variation rendered it neceſſary, new combinations or ſymbols have been introduced, and obſervations ſubjoined for their elucidation.

The abecedary rules, as taught by the natives, are, in their aggregate capacity, called *Sănbun*, or, *The Syſtem of Inſtruction*. They are claſſed under three diſtinct heads; and theſe again divided into thirty ſubordinate diviſions, by the inflection of the primary letters, or alphabet properly ſo called, with the three claſſes of vowels *ărwi*, *ăsăitne*, and *ăsăitcri*, and four other marks. The inſtruction commences, however, with eighteen ſounds, to prepare the pupil, as it is ſaid, for the greater difficulties that are to follow. Theſe ſounds are included in what is taught ſubſequently, though ten of their ſymbols are not, which are therefore ſubjoined in the annexed Plate.

I.

Of the ſeveral ſeries as they occur in the *Plate*, the firſt is *căgric'he*, or *the alphabet*; reſpecting which there is little to obſerve. In certain caſes, to facilitate utterance, *c* is permuted with *g*, *ch* with *j*; the *ſecond d* with the *ſecond t*, *p* with *b*, and con-

* *Ava* and *Aracan*.

† Plate I.

verſely.

verſely. Of thoſe ſounds that have more than one ſymbol, the *firſt c'h, ch'h, l*; *ſecond t, d, n*; and *third t'h*, are in general uſe; alſo the *ſecond p'h*; except in thoſe inſtances where it does not aſſociate with the *four marks* that will appear under the following head.

II.

Theſe are the *four marks* alluded to above. Their names, as they occur in the *Plate*, are *ăpāñ, ărăĭt, hnăch'hwe, hmăch'hwe*, &c. according to the letter it is aſſociated with, and *wăch'hwe*.

ăpāñ.

The mark of this ſymbol is *y*; though it might more properly and ſometimes more conveniently, be marked by our third vowel, commencing a diphthong. The letters to which it is affixed are *c, c'h*, (1,*) *g, t*, (2,) *p, p'h*, (1,) *b, m, l*, (1,) *s*. To this laſt it gives nearly the ſound of our *ſh*; which notation it is neceſſary to preſerve, though probably not conformable to the ſtrict rules of analogy. Poſſibly the conſtituent parts of this ſound are the *palatial ſibilant*, and *i*, coaleſcing with a following vowel.

Ărări.

This mark is typified by *r*, and is always prefixed to the letters with which it aſſociates. Theſe are *c, c'h*, (1,) *g, n, ch'h*, (1;) *t*, (2;) *p, p'h*, (1;) *b, m*. With *ch'h* it forms a very harſh combination. But it is to be obſerved, that it is the nature of this, as well as of all the marks, either ſeparately, or in their ſeveral combinations, to coaleſce into one ſound with the aſſociated letter as nearly as the organs of articulation will admit. Its name *ărăĭt* deſignates its natural form, meaning *erect* or *upright*.

Hmăch'hwe.

This extraordinary mark forms a new claſs of aſpirates. Its name ſignifies *ſuſpended*, from its ſituation with reſpect to the letter. The letters under which it is placed, are *n, ny, n*, (2;) *m, r, l*, (1;) *w, s*; before the *firſt ſeven* of which its type is *h*. † *s* it hardens into *z*, the appropriate ſymbol; or adds a ſyllable to the inherent vowel, as *ſămi*, a daughter, which may be either written with the mark

* The figures refer to the archetype in the *Plate*.

† The aſpirate ſo evidently precedes the letter in pronunciation, that, however inclination may lead to make the ſymbol follow the letter, as is uſual in the other aſpirates, in this inſtance it cannot be done without an offenſive violation of all analogy.

before

before us, or by *m*.* In the introductory part to *the ſyſtem*, † it ſays, "when the breath is obſtructed by the preſſure of the tongue (againſt the roots of the upper teeth, or probably againſt the palate) and forced between the teeth on either ſide of it, a liquid is formed peculiar to the *Britiſh* dialect of the *Celtick*." We have found, however, this very ſound in the mark before us when aſſociated with *l*. If this be the ſound repreſented by *ll*, as in the common ſurname *Lloyd*, the notation is but ill-ſuited to give an idea of its powers. In the combination of this mark with *ăpān*, the only letters of aſſociation are *m* and *l*; and with *ārăit*, *n* and *m*; the ſymbol being formed, as in the original, of the component parts.

Wăch'hwe,

or the *ſuſpended w*, is ſubtended to every letter, excepting that with which it correſponds in the alphabet. Its ſymbol is *w*, but ſubject to certain changes and ſuppreſſion, the particular inſtances of which will appear when the vowels come to be treated of. This mark with the letter *h*, and the one immediately preceding with the letter *w*, form two combinations for the ſame ſound; which is that of *wh* in the word *what*. In its aſſociations with the other marks, it is governed by the ſame rules, and governs the ſame letters as already related under their ſeparate and combined forms; with an exception, however, to its homogeneous character in the alphabet. With *ăpān*, and *ăpān hmăch'hwe* and *hlăch'hwe*, we have the genuine ſound of our *third* vowel forming a dipthong with the *fifth*; as *miuwă*, *hmiuwă*, *hliuwă*; the dipthong in theſe inſtances having preciſely the ſame ſound as in our word *lieu*: but, to preſerve the notation here laid down, it muſt be typified by *y*, as *mywă*, *hmywă*, *hlywă*; though it might more properly be repreſented by its conſtituent parts, as in the firſt example.

3, 4, 5.

Theſe are the *three ſeries of vowels* and *naſal marks*. The firſt is called *ărwi*, or *written*, ſimply; ‡ the ſecond *ăsăitne*, from the root *săit*, to ſtrike, (owing to the mark *ăsăit* or *tănc'hwăih* that is ſtruck in writing from the top of the *final* letter) and *ne*, ſmall; and the third *ăsăitcri*, from the ſame, and *cri*, large, great, in conſequence of the proportion of the *firſt* ſeries that is ingrafted into it being more than in the ſecond.

* See Plate I. *a*.

† That commences the *firſt* volume of the Reſearches of the Society. For the ſake of brevity it will be quoted throughout by this title.

‡ A letter is alſo ſaid to be *ărwi* when uninflected.

The

The alphabet, in its ſeveral aſſociations with *ăpăn*, *ărăit*, *hnăch'hwe*, and *wăch'hwe*, is, with only one exception, uniformly inflected throughout with the three ſeries of vowels and naſal marks in regular rotation as they occur in the Plate. The inſtance to the contrary is *wăch'hwe*, which is altogether excluded in the alphabetical inflection of *ăsăitcri*.

Except as a compound, the firſt vocal ſound, as deſcribed in the ſyſtem, has no place in the language before us. And there is yet a more ſtriking ſingularity; which is, that every ſyllable is liquid, as it were, in its termination, each letter having its peculiar vowel or naſal mark ſubjoined, and in no inſtance coaleſcing with a following letter. But, to elucidate it by inſtances from our own language: were a native of *Ava* or *Aracan* merely acquainted with the Roman letters, and that ſuch ſymbols repreſented ſuch and ſuch ſounds, without knowing their rules of aſſociation, to read the words *book*, *boot*, *bull*, he would, agreeably to the powers he is taught to affix to the characters of his own language, pronounce them uniformly *bù*, or *bùcă*, *bùtă*, *bùlă*, reſpectively. And he could not poſſibly do otherwiſe; the organs of articulation being inadequate to give utterance to the final letters according to the abrupt mode by which we are inſtructed to terminate thoſe words. It need ſcarcely be obſerved, that hence each letter of the alphabet properly ſo called is uſed as a *ſyllabic initial*, and *never* as a *medial* or *final*, if we except the *naſals*. But here we only ſpeak as far as pronunciation is concerned. There is reaſon to ſuppoſe that this ſingularity is not peculiar to the language we are treating of, but that the *Chineſe* is formed upon the ſame principle; and probably ſome of the *African* dialects, if the analogy obſervable in the mode in which ſome natives of that quarter of the globe pronounce exotick words, and that of the *Mărămăs*, be ſufficient ground for the ſuggeſtion. Whether the language of *Tibet* be not alſo, a member of the Society may be poſſibly able to determine. A native of *Aracan*, of naturally ſtrong parts, and acute apprehenſion, with whom more than common pains have been taken for many months paſt to correct this defect, can ſcarcely now, with the moſt determined caution, articulate a word or ſyllable in *Hindúſtani* that has a *conſonant* for a *final*, which frequently occaſions very unpleaſant, and ſometimes ridiculous equivocations; and ſuch is the force of habit even to making the moſt ſimple and eaſy things difficult, that as obvious as the *firſt elementary ſound* appears to our comprehenſion, in an attempt that was made to teach him the *Nágari* character, of which it is the *inherent* vowel, a number of days elapſed before

fore he could be brought to pronounce it, or even to form any idea of it, and then but a very imperfect one.

The *Plate*, as has been already obſerved, ſhews the alphabetical arrangement adopted by the natives. It will be more convenient, however, in treating of the three ſeries of vowels and naſal marks, to throw them into claſſes; not only for the ſake of perſpicuity, but to avoid the irkſome taſk of endleſs repetition.

ă, ā, à, ăt.

Our extended ſound in *all*, and its contracted one in *fond*, are the baſis of theſe four vowels. The firſt is pronounced with an accent peculiarly acute, by an inflection pretty far back of the tongue towards the palate, terminated by a kind of catch. It ſeems, however, to drop this diſtinction when followed by a grave accent, as *tărà*, juſt; a property that it would appear to poſſeſs in common with the other vowels diſtinguiſhed by *acute* accents. It is inherent in every vowel, which may be the reaſon why it is placed laſt in the alphabet. The accent of the third is as remarkably *grave* as the other is *acute*; the ſecond forming a medium between both, being our broad vowel in *all*; while the fourth is a guttural, analogous to the *Arabian kaf*; a ſuppreſſion of the final utterance by which this is characterized as a conſonant, being all that is neceſſary to form the ſound before us.

ĭ, ì, ĭt.

The two firſt are accented in the ſame proportion as *ă* and *à*, only with ſomewhat leſs force. The laſt is pronounced with an effort unuſually harſh, by a ſtrong inflection of the centre part of the tongue towards the palate. It ſeems to form a ſound between the third vowel of the ſyſtem and the actual articulation of its final letter, with which a foreigner, from mere oral knowledge, would moſt probably be induced to write it. No doubt, however, exiſts of its being a vowel, as attention to the mode in which a native pronounces it will fully demonſtrate. The conſtituent ſound in *ăpāṅ* being our third vowel, in the inflection of thoſe letters which take that mark with the three vowels before us, the variation in their aſſociated and unaſſociated capacity is not eaſily diſcernible at firſt, but the difference is diſcovered in a day or two's practice by the aſſiſtance of a native.

u, ù, ŭp.

The *grave* and *acute* accents of the laſt ſeries characterize the two firſt of the preſent; the third being formed by a ſudden reciprocation of the tongue with an appulſe nearly of the lips, ſo as to convey an idea of fulneſs; or, if the expreſſion may

may be allowed, a remarkable roundneſs of ſound united to an uncommonly obtuſe and abrupt termination, a peculiarity that marks thoſe vowels of the ſeries *ăsăĭtŭe* and *ăsăĭtcri*, that have *mutes* for the double letter. To this obſervation, however, there is an exception, which will be taken notice of in its proper place. The ſound of the letter, when aſſociated with *wăch'hwe*, and inflected by the two firſt of theſe vowels, remains the ſame as in its unaſſociated form: but the ſigma in this caſe appears to be conſidered by the natives themſelves as redundant, for it has hitherto only been met with in their abecedary ſyſtem.

e, è.

The *firſt* is the *e* of *the ſyſtem.* It has two types; the *ſeventh* of the firſt ſeries, and *the laſt but one* of the ſecond, and which are often abbreviated in writing, as in the verbal termination *ze* and *rwe* in the Plate. * By a ſtrange irregularity, it is frequently written for *i.* The *ſecond* is diſtinguiſhed by the *grave* accent of the preceding ſeries.

aò, ao; o, ò.

Theſe vowels ſeem to be thus diſtinguiſhed in the *ſyſtem:* "By purſing up our lips in the leaſt degree, we convert the ſimple element into another ſound of the ſame nature with the *firſt* vowel, and eaſily confounded with it in a broad pronunciation: when this new ſound is lengthened, it approaches very nearly to the *fourth* vowel, which we form by a bolder and ſtronger rotundity of the mouth." The two firſt may be often miſtaken for the laſt; and, in ſome words, even for *ā* and *ă*, when inflecting the other letters with *wăch'we*, ſuſpended. Like *u, ù*, the ſymbol in aſſociation with *wăch'we*, when inflected with theſe four vowels, is redundant.

ăĭt, ăĭp; aich, aiț.

Our dipthong in *ay*, or *joy*, which ſeems to be compounded of the broad vowel in *all*, or rather its correſpondent ſhort one, followed by the third, pronounced with the acute piercing accent deſcribed in treating of the firſt vowel, conſtitutes the ſound of the two firſt of the preſent claſs of vowels; while the narrower ſound in *eye* or *my*, with the obtuſe abrupt termination mentioned under the third claſs of vowels, peculiarizes the two laſt. Taken in two's, as they appear above ſeparated by the *ſemicolon*, their ſounds are congenial. The two firſt form the exception taken notice of under the third claſs of vowels.

* Plate I. *b.*

aut

aut̂.

The diphthong of the *firſt* and *fifth* vowels, already ſo fully deſcribed in the ſyſtem, with the guttural termination of *ăt̂*, is the ſound of this vowel. It is ſometimes abbreviated, by an eliſion of the *final* letter, when a point above is ſubſtituted in its room. *

The *naſals* are now only left for diſcuſſion; their peculiar vowels, as well as moſt of their naſal terminations, are to be found either in the ſyſtem, or in the foregoing obſervations. The only thing thererefore that remains, is arranging them into claſſes, and making a few trifling ſtrictures.

ān̂, ăn̂.

No elucidation is here neceſſary. A ſpecies of abbreviation is ſometimes obſervable in writing, when the double letter is placed above, inſtead of preceding, the following letter; as in the word *sāñbuñ*. †

iñ.

The ſigma of this naſal in the original is not deduced analogouſly; its powers as a *ſyllabic initial* being that of the *dental* naſal, which ſound is altogether excluded from this language as a *final.*

um, uñ.

The firſt of theſe is the regular ſymbol. Both ſounds have but one type in the original, that has a *labial* appearing to be reſtricted to thoſe inſtances where a labial follows; as *cumbuṕ*, a *ſmall eminence*, or riſing ground. The naſal is frequently repreſented by a point above the letter.

ăiñ, ăîñ, aim; aìñ, aiñ.

The vowels of thoſe naſals are in the ſame proportion as *ăit, aich*, pronounced without the acute accent and abrupt termination by which they are reſpectively diſtinguiſhed. The *obſcure* naſal, ‡ formed by a ſlight inflection of the tongue towards the palate, with a trifling aid from the other organ, and which is ſo frequently to be met with in *Perſian* and *Hindi* vocables, is the ſound of the two firſt; the purpoſe of the third being ſeemingly to take their place when a *labial* follows,

* See Plate I. *c.*

† See Plate I. *d.*

‡ This naſal appears to hold a middle place between the *dental* and *guttural* naſals conſidered as *finals*; with the laſt of which it has but one common type in *the Syſtem.*

as in the word *căimp'hā*, the *earth*.* It may be proper to obſerve here, that, like the *Hindi*, there is a ſlight naſality perceivable in the pronunciation of ſome words for which there is no ſymbol.

The diphthongs of *aìn̆* and *aiñ* are permuted with *è* and *e* when inflecting *ny*, *y*, and the whole claſs of *ăpān̆*; as *nyèn̆*, *nyeñ*, &c. and *aìn̆*, when inflecting thoſe letters with *wăch'hwe* ſuſpended, and the claſs *ăpān̆-wăch'hwè*; as *nywèn̆*, &c. This laſt naſal, by an anomaly not to be accounted for, is very often written for *e*.

aun̆, *aùn̆*.

Theſe compounds, formed of the firſt and fifth vowels and *guttural* naſal, cloſe the three ſeries of vowels and naſal marks, and with them the abecedary rules of this language.

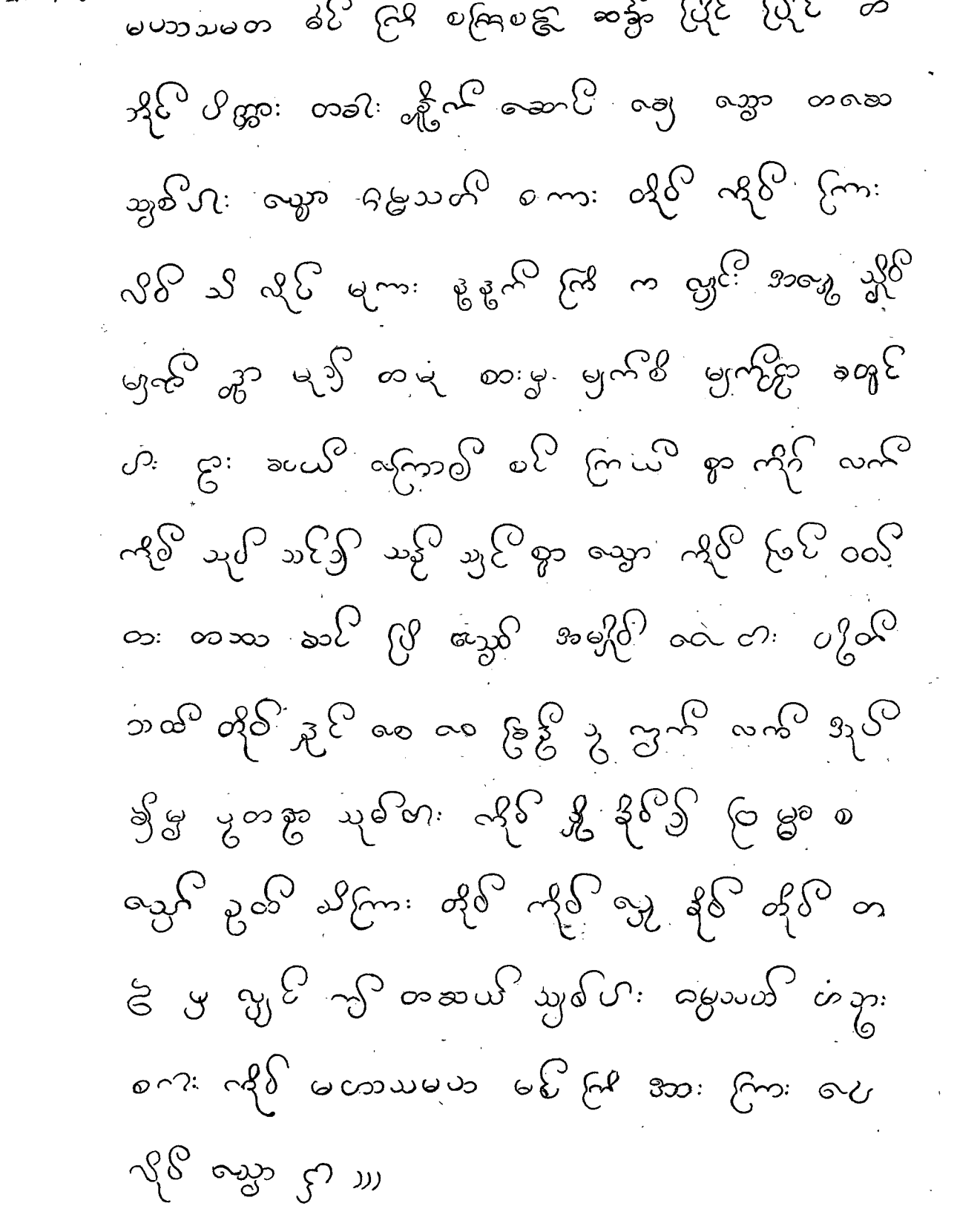
There is, however, one obſervation more requiſite, that could not have been introduced before without inconvenience, and which has therefore been reſerved for this place. *ă* conſidered in its *ſyllabic initial* capacity, in its inflections of *ărwi* and *ăsāitne* with *wăch'hwe* ſuſpended, is preceded by the fourth vowel, which, in this inſtance only, forms the ſymbol for *wăch'hwe*. The notation, therefore, for this deviation ſhould be as follows: *oá*, *oa*, *oà*, *oaî*, *oaiñ*, *oàiñ*; *o'i*, *o'ì*; *o'e*, *o'è*; *o'ăit*, *o'ăip*, *o'ăiŭ*, *oăiñ*, *o'ăim*; *o'aich*, *o'aiĉ*, *o'aìn̆*, *o'aiñ*. There is a farther deviation obſervable in the *firſt ſix*, the primary vowel being changed in the preſent caſe into the ſimple element, with which the incipient letter coaleſces into a diphthong. In the reſt, the initial vowel is articulated ſeparately, as the comma between indicates. As for *u*, *ù*; *aò*, *ao*; *o*, *ò*; they retain the ſame ſound, as has been already obſerved, either with or without *wăch'hwe*.

The following extract, taken from a book entitled *Măn̆u Săiñgwāñ*, or the *Iron Ring of Măn̆u*, is offered merely as a ſpecimen of the notation here laid down. It ſcarcely from its inſignificancy, deſerves a tranſlation: however, one is ſubjoined.

Măhāsămădă māñ gri chăĉ' crăwălā sāñchyā praiñ braiñ tăiñ daiñ piĭ', tà tăiñchà hnaiĉ chhauñ chye zaò tăchhe shaich'pà zaò thăimmăsăiĉ chăgà do go crà lo si lo mu'gà năiñ năĉ cri gā hlyāñ a'hri zo myăĉ'hnā mu'rwe tămuñ chà hmă myăĉ'hnā chāiñ'dwāñ pà nà chhe graò'rwe chāñ gre jwà colăĉ co ſuṕ sāñ'rwe săiñ shāñ jwà zaò co phrāñ wăiĉ chà tăiñ'chhā chhăñ bri zaò.

* See Plate I. *e*; where it may be obſerved, the double letter has the one which ſhould follow it ſubtended to it, and takes the vowel with which it is inflected, the diſtinguiſhing mark *asăit* being ſuppreſſed; an abbreviation very common in the vowels and naſal marks formed by double letters, particularly where the double letter is the ſame with that which immediately follows it.

To face pa: 910.



ămyo le'bà părit'săit do hnăn che we chrăiñ răiñ lyăc lăc up chyi hmă rădănā sumbà go hri' cho'rwe brăimmā chă zaò năit sigrà do go hri'cho tain dăiñ u hmă hlyān i tăchhe shaich'pà thăimmăsăit tărà chăgà go măhāsămădă mān gri à crà pe lo zaò hnā. *

And MĂNU said, "O, mighty Prince, MĂHĀSĂMĂDĂ! if thou hast an inclination to hear and understand the words of the eighteen holy books which I brought from the gate of *Chăc'răwălā*,† that enclose and form a barrier (to the earth) from thy palace; with thy face turned towards the east, cleaning thy teeth; washing thy eyes, mouth, cheeks, and ears, and wiping thy body and hands; and with a purified person, and having put on thy apparel and eat; and with the four friends‡ assembled, and forming a circle, closing thy hands, and making obeisance to the three inestimable jewels, § and prostrating thyself before *Brăimmā*, (and the two classes of beneficent Genii) *Năit* and *Sigrà*, and making known to them thy grievances (having performed all these acts, then) will I present unto thee, illustrious monarch, *Măhāsămădă*, and cause thee to hear the words of these eighteen books of Divine ordinances."

It is difficult to refrain observing, that the arrangement not only of the alphabet, but of the first series of vowels (eight of which have distinct characters‖ which are not inflected) of the foregoing system, has a striking similitude to the *Devanagárì*. In the alphabet, for instance, wherever it is defective, such deficiency is supplied by double, and, in one case, quadruple, symbols for the same sound; the first part being arranged into classes of four, each terminated by a nasal, forming together the number twenty-five; which exactly corresponds with the *Devanagárì*.

From information, there appears to be scarcely room to doubt, but that the *Siamese* have one common language and religion with the *Brăimmās* and *Mărămăs*; and that in manners and customs the three nations form, as it were, one great family. How far these observations may extend to the inhabitants of *Asam*, we shall be able to judge on the publication of the history of that country.

It may be sufficient to observe in this place, that there is one sad impediment to attaining a critical knowledge of the idiom of the language of *Ava* and *Aracan*,

* For the original, see Plate II.

† Steep and stupendous mountains fabled to surround the earth, and beyond which no mortal can pass.

‡ MAN; the two classes of supernatural beings, NAIT and SIGRA, supposed to possess the peculiar guardianship of mankind; and *Brăimmā* through an attribute, it would seem, of ubiquity.

§ *Phură, Tărā Sānc'hā.* The incarnate Deities, Divine Justice and the Priests.

‖ See Plate I. Figure 6.

without

without which we may in vain expect from any pen accurate information reſpecting the religion, laws, manners, and cuſtoms, of theſe kingdoms; and that is, that there is no regular ſtandard of orthography, or the ſmalleſt trace of grammatical enquiry to be found among the natives.* Much, however, may be done by patience and attention. The field is ample; and he who has leiſure and perſeverance to attain a juſt knowledge of its bounds, will probably find his labours rewarded beyond his moſt ſanguine expectation.

XIII.

SOME ACCOUNT OF THE ELASTIC GUM VINE OF PRINCE OF WALES'S ISLAND, AND OF EXPERIMENTS MADE ON THE MILKY JUICE WHICH IT PRODUCES: WITH HINTS RESPECTING THE USEFUL PURPOSES TO WHICH IT MAY BE APPLIED.

By JAMES HOWISON, *Eſq.*

Communicated by JOHN FLEMING, *Eſq.*

OUR firſt knowledge of the plant being a native of our *Iſland* aroſe from the following accident. In our excurſions into the foreſts, it was found neceſſary to carry cutlaſſes for the purpoſe of clearing our way through the underwood. In one of thoſe an elaſtic gum vine had been divided, the milk of which drying upon the blade, we were much ſurprized in finding it poſſeſs all the properties of the *American*

* Every writing that has hitherto come under obſervation, has been full of the groſſeſt inaccuracies: even thoſe ſtamped by the higheſt authority; ſuch as official papers from the king of *Ava* to our government. How far the *Pălit*, or ſacred language, in which their religious ordinances are written, may be exempted from this remark, it is impoſſible to ſay. The *Prieſts* are almoſt the only people converſant in it, and few even among them are celebrated for the accuracy and extent of their knowledge. Between *Rámu* and *Iſlámabàd*, only *one* perſon has been heard of, and to him acceſs has not hitherto been obtainable. Enquiry ſeems to favour an opinion, that an acquaintance with both languages is abſolutely neceſſary to effect the important purpoſes that at preſent introduce themſelves to our notice, and which are to prove the inhabitants of *Siam*, *Ava*, and *Araçan*, to be one and the ſame people in language, manners, laws, and religion; and features of the ſtrongeſt reſemblance between them and thoſe of *Aſam*, *Népal*, and *Tibet*; and eventually to add another link to the chain of general knowledge, by furniſhing materials for filling up the interval that ſeems at preſent to ſeparate the *Hindus* from the *Chineſe*.

Caout-chouc.

Caout-chouc. The vine which produces this milk is generally about the thickneſs of the arm, and almoſt round, with a ſtrong aſh-coloured bark, much cracked, and divided longitudinally; has joints at a ſmall diſtance from each other, which often ſend out roots, but ſeldom branches; runs upon the ground to a great length; at laſt riſes upon the higheſt trees into the open air. It is found in the greateſt plenty at the foot of the mountains, upon a red clay mixed with ſand, in ſituations completely ſhaded, and where the mercury in the thermometer will ſeldom exceed ſummer heat.

In my numerous attempts to trace this vine to its top, I never ſucceeded; for, after following it in its different windings, ſometimes to a diſtance of two hundred paces, I loſt it, from its aſcending among the branches of trees that were inacceſſible either from their ſize or height. On the weſt coaſt of *Sumatra* I underſtand they have been more ſucceſsful; *Doctor Roxburgh* having procured from thence a ſpecimen of the vine in flowers, from which he has claſſed it; but whoſe deſcription I have not yet ſeen.

With us the *Malays* have found taſting of the milk the beſt mode of diſcriminating between the elaſtic gum vine and thoſe which reſemble it in giving out a milky juice, of which we have a great variety; the liquid from the former being much leſs pungent or corroſive than that obtained from the latter.

The uſual method of drawing off the milk is by wounding the bark deeply in different places, from which it runs but ſlowly, it being full employment for one perſon to collect a quart in the courſe of two days. A much more expeditious mode, but ruinous to the vine, is cutting it in lengths of two feet, and placing under both ends veſſels to receive the milk. The beſt is always procured from the oldeſt vines. From them it is often obtained in a conſiſtence equal to thick cream, and which will yield two thirds of its own weight in gum.

The chemical properties of this vegetable milk, ſo far as I have had an opportunity of examining, ſurprizingly reſemble thoſe of animal milk. From its decompoſition in conſequence of ſpontaneous fermentation, or by the addition of acids, a ſeparation takes place between its *caſeous* and ſerous parts, both of which are very ſimilar to thoſe produced by the ſame proceſſes from animal milk. An oily or butyrous matter is alſo one of its component parts, which appears upon the ſurface of the gum ſo ſoon as the latter has attained its ſolid form. The preſence of this conſiderably impeded the progreſs of my experiments, as will be ſeen hereafter.

I was

I was at ſome trouble in endeavouring to form an extract of this milk ſo as to approach to the conſiſtence of new butter, by which I hoped to retard its fermentative ſtage, without depriving it of its uſeful qualities; but as I had no apparatus for diſtilling, the ſurface of the milk, that was expoſed to the air, inſtantly formed into a ſolid coat, by which the evaporation was in a great degree prevented. I, however, learned, by collecting the thickened milk from the inſide of the coats, and depoſiting it in a jelly pot, that, if excluded from the air, it might be preſerved in this ſtate for a conſiderable length of time.

I have kept it in bottles, without any preparation, tolerably good, upwards of one year; for, notwithſtanding the fermentation ſoon takes place, the decompoſition in conſequence is only partial, and what remains fluid, ſtill retains its original properties, although conſiderably diminiſhed.

Not having ſeen *M. Fourcroy's* memoir on *Caout-chouc*, I could not make trials of the methods propoſed by him for preſerving the milk unaltered.

In making boots, gloves, and bottles, of the elaſtic gum, I found the following method the beſt: I firſt made moulds of wax, as nearly of the ſize and ſhape of what they repreſented as poſſible; theſe I hung ſeparately upon pins, about a foot from the ground, by pieces of cord wrought into the wax: I then placed under each a ſoup plate, into which I poured as much of the milk as I thought would be ſufficient for one coat. Having dipped my fingers in this, I completely covered the moulds one after another, and what dropped into the plates was uſed as part of the next coat: the firſt I generally found ſufficiently dry in the ſpace of ten minutes, when expoſed to the ſun, to admit of a ſecond being applied: however, after every ſecond coat, the oily matter before mentioned was in ſuch quantity upon the ſurface, that, until waſhed off with ſoap and water, I found it impoſſible to apply any more milk with effect; for, if laid on, it kept running and dividing like water upon wax.

Thirty coats I in common found ſufficient to give a covering of the thickneſs of the bottles which come from *America*. This circumſtance may, however, at any time be aſcertained, by introducing the finger between the mould and gum, the one very readily ſeparating from the other.

I found the fingers preferable to a bruſh, or any inſtrument whatever, for laying on the milk; for the moment a bruſh was wet with that fluid, the hair became united as one maſs. A mode which at firſt view would appear to have the advantage of all others for eaſe and expedition in covering clay and wax moulds

with

with the gum, viz. immerſing them in the milk, did not at all anſwer upon trial, that fluid running almoſt entirely off, although none of the oily matter was preſent; a certain degree of force ſeeming neceſſary to incorporate by friction the milk with the new formed gum.

When, upon examination, I found that the boots and gloves were of the thickneſs wanted, I turned them over at the top, and drew them off, as if from the leg or hand, by which I ſaved the trouble of forming new moulds. Thoſe of the bottles being ſmalleſt at the neck, I was under the neceſſity of diſſolving in hot water.

The inſide of the boots and gloves which had been in contact with the wax being by far the ſmootheſt, I made the outſide. The gloves were now finiſhed, unleſs cutting their tops even, which was beſt done with ſciſſars. The boots, however, in their preſent ſtate, more reſembled ſtockings, having as yet no ſoles. To ſupply them with theſe, I poured upon a piece of gunny a proper quantity of milk, to give it a thick coat of gum. From this, when dry, I cut pieces ſufficiently large to cover the ſole of the foot, which, having met with the milk, I applied; firſt replacing the boot upon the mould to keep it properly extended. By this mode the ſoles were ſo firmly joined, that no force could afterwards ſeparate them. In the ſame manner I added heels and ſtraps, when the boots had a very neat appearance. To ſatisfy myſelf as to their impermeability to water, I ſtood in a pond up to their tops for the ſpace of fifteen minutes, when, upon pulling them off, I did not find my ſtockings in the leaſt damp. Indeed, from the nature of the gum, had it been for a period of as many months, the ſame reſult was to have been expected.

After being thus far ſucceſsful, I was greatly diſappointed in my expectations with regard to their retaining their original ſhape; for, on wearing them but a few times, they loſt much of their firſt neatneſs, the contractions of the gum being only equal to about ſeven-eighths of its extenſion.

A ſecond diſadvantage aroſe from a circumſtance difficult to guard againſt, which was, that if, by any accident, the gum ſhould be in the ſmalleſt degree weaker in one place than another, the effect of extenſion fell almoſt entirely on that part, and the conſequence was, that it ſoon gave way.

From what I had obſerved of the advantage gained in ſubſtance and uniformity of ſtrength, by making uſe of gunny as a baſis for the ſoles, I was led to ſuppoſe, that if an elaſtic cloth, in ſome degree correſpondent to the elaſticity of the gum, were uſed for boots, ſtockings, gloves, and other articles, where that property was

neceſſary,

neceſſary, that the defects above mentioned might in a great meaſure be remedied. I accordingly made my firſt experiment with *Coſſimbazar* ſtockings and gloves.

Having drawn them upon the wax moulds, I plunged them into veſſels containing the milk, which the cloth greedily abſorbed. When taken out, they were ſo completely diſtended with the gum in ſolution, that, upon becoming dry by expoſure to the air, not only every thread, but every fibre of the cotton had its own diſtinct envelope, and in conſequence was equally capable of reſiſting the action of foreign bodies as if of ſolid gum.

The firſt coat by this method was of ſuch thickneſs, that for ſtockings or gloves nothing farther was neceſſary. What were intended for boots required a few more applications of milk with the fingers, and were finiſhed as thoſe made with the gum only.

This mode of giving cloth as a baſis I found to be a very great improvement: for, beſides the addition of ſtrength received by the gum, the operation was much ſhortened.

Woven ſubſtances, that are to be covered with the gum, as alſo the moulds on which they are to be placed, ought to be conſiderably larger than the bodies they are afterwards intended to fit; for, being much contracted from the abſorption of the milk, little alteration takes place in this diminution in ſize, even when dry, as about one-third only of the fluid evaporates before the gum acquires its ſolid form.

Great attention muſt be paid to prevent one part of the gum coming in contact with another while wet with the milk or its whey; for the inſtant that takes place, they become inſeparably united. But ſhould we ever ſucceed in having large plantations of our own vine, or in transferring the *American* tree (which is perhaps more productive) to our poſſeſſions, ſo that milk could be procured in ſufficient quantity for the covering various cloths, which ſhould be done on the ſpot, and afterwards exported to *Europe*, then the advantages attending this ſingular property of the milk would for ever balance its diſadvantages: cloths, and coverings of different deſcriptions, might then be made from this gum cloth, with an expedition ſo much greater than by the needle, that would at firſt appear very ſurpriſing: the edges of the ſeparate pieces only requiring to be wet with the milk, or its whey, and brought into contact, when the article would be finiſhed, and fit for uſe. Should both milk and whey be wanting, a ſolution of the gum in ether can always be obtained, by which the ſame end would be accompliſhed.

Of all the cloths upon which I made experiments, nankeen, from the ſtrength

and

and quality of its fabric, appeared the beſt calculated for coating with the gum. The method I followed in performing this, was, to lay the cloth ſmooth upon a table, pour the milk upon it, and with a ruler to ſpread it equally. But ſhould this ever be attempted on a larger ſcale, I would recommend the following plan: To have a ciſtern for holding the milk a little broader than the cloth, to be covered with a croſs bar in the centre, which muſt reach under the ſurface of the milk, and two rollers at one end. Having filled the ciſtern, one end of the piece of cloth is to be paſſed under the bar, and through between the rollers; the former keeping the cloth immerſed in the milk, the latter in preſſing out what is ſuperfluous, ſo that none may be loſt. The cloth can be hung up at full length to dry; and the operation repeated until of whatever thickneſs wanted. For the reaſons above-mentioned, care muſt be taken that one fold does not come in contact with another while wet.

Having obſerved that moſt of the patent catheters and bougies made with a ſolution of the elaſtic gum, whether in ether or in the eſſential oils, had either a diſagreeable ſtickineſs, or were too hard to admit of any advantage being derived from the elaſticity of the gum, I was induced to make ſome experiments with the milk towards removing theſe objections.

From that fluid, by evaporation, I made ſeveral large ſized bougies of pure gum, which, from their over-flexibility, were totally uſeleſs. I then took ſome ſlips of fine cloth covered with the gum, which I rolled up until of a proper ſize, and which I rendered ſolid by ſoaking them in the milk, and then drying them. Theſe poſſeſſed more firmneſs than the former, but in no degree ſufficient for the purpoſe intended. Pieces of ſtrong catgut, coated with the gum, I found to anſwer better than either.

Beſides an effectual cloathing for manufacturers employed with the mineral acids, which had been long a deſideratum, this ſubſtance, under different modifications, might be applied to a number of other uſeful purpoſes in life; ſuch as making hats, great coats, boots, &c. for ſailors, ſoldiers, fiſhermen, and every other deſcription of perſons who, from their purſuits, are expoſed to wet ſtockings; for invalids, who ſuffer from damps; bathing caps, tents, coverings for carriages of all kinds, for roofs of houſes, trunks, buoys, &c.

This extraordinary vegetable production, in place of being injured by water, at

its uſual temperature * is preſerved by it. For a knowledge of this circumſtance I am indebted to the *Chineſe*. Having ſome years ago commiſſioned articles made of the elaſtic gum from *China*, I received them in a ſmall jar filled up with water, in which ſtate I have ſince kept them without obſerving any ſigns of decay.

Should it ever be deemed an object to attempt plantations of the elaſtic gum vine in *Bengal*, I would recommend the foot of the *Chittagong*, *Rajmahal* and *Bauglipore* hills, as ſituations where there is every probability of ſucceeding, being very ſimilar in ſoil and climate to the places of its growth on *Prince of Wales's Iſland*. It would, however, be adviſable to make the firſt trial at this ſettlement, to learn in what way the propagation of the plant might be moſt ſucceſsfully conducted. A further experience may alſo be neceſſary, to aſcertain the ſeaſon when the milk can be procured of the beſt quality, and in the greateſt quantity, with the leaſt detriment to the vine.

* From an account of experiments made with the elaſtic GUM by M. GROSSART, inſerted in the *Annals de Chimie* for 1792, it appears, that water, when boiling, has a power of partially diſſolving the gum ſo as to render one part capable of being finally joined to another by preſſure only.

XIV.

A BOTANICAL DESCRIPTION OF URCEOLA ELASTICA, OR CAOUT-CHOUC VINE OF SUMATRA AND PULLO-PINANG; WITH AN ACCOUNT OF THE PROPERTIES OF ITS INSPISSATED JUICE, COMPARED WITH THOSE OF THE AMERICAN CAOUT-CHOUC.

By WILLIAM ROXBURGH, *M. D.*

FOR the diſcovery of this uſeful vine, we are, I believe, indebted to Mr. HOWISON, late *Surgeon* at *Pullo-pinang*; but it would appear he had no opportunity of determining its botanical character. To *Doctor* CHARLES CAMPBELL, of *Fort Marlborough*, we owe the gratification ariſing from a knowledge thereof.

About

About twelve months ago I received from that gentleman, by means of Mr. FLEMING, very complete ſpecimens, in full foliage, flower, and fruit. From theſe I was enabled to reduce it to its claſs and order in the *Linnæan* Syſtem. It forms a new genus in the claſs *Pentandria*, and order *Monogynia*, and comes in immediately after *Tabernæmontana*, conſequently belongs to the thirtieth natural order, or claſs called *Contortæ* by LINNÆUS in his natural method of claſſification or arrangement. One of the qualities of the plants of this order is, their yielding, on being cut, a juice which is generally milky, and for the moſt part deemed of a poiſonous nature.

The generic name, *Urceola*, which I have given to this plant, is from the ſtructure of the corol, and the ſpecific name from the quality of its thickened juice.

So far as I can find, it does not appear that ever this vine has been taken notice of by any *European* till now. I have carefully looked over the *Hortus Malabaricus*, RUMPHIUS's *Herbarium Amboinenſe*, &c. &c. Figures of *Indian* Plants, without being able to find any one that can with any degree of certainty be referred to. A ſubſtance of the ſame nature, and probably the very ſame, was diſcovered in the Iſland of *Mauritius*, by M. POIVRE, and from thence ſent to *France*; but, ſo far as I know, we are ſtill ignorant of the plant that yields it.

The impropriety of giving to *Caout-chouc* the term gum, reſin, or gum-reſin, every one ſeems ſenſible of, as it poſſeſſes qualities totally different from all ſuch ſubſtances as are uſually arranged under thoſe generic names: yet it ſtill continues, by moſt authors I have met with, to be denominated elaſtic reſin, or elaſtic gum. Some term it ſimply *Caout-chouc*, which I wiſh may be conſidered as the generic name of all ſuch concrete vegetable juices (mentioned in this memoir) as poſſeſs elaſticity, inflammability, and are ſoluble in the eſſential oils, without the aſſiſtance of heat.

In a mere definition, it would be improper to ſtate what qualities the object does not poſſeſs; conſequently it muſt be underſtood that this ſubſtance is not ſoluble in the menſtruums which uſually diſſolve reſins and gums.

Eaſt-India Caout-chouc would be a very proper ſpecific name for that of *Urceola elaſtica*, were there not other trees which yield juices ſo ſimilar as to come under the ſame generic character; but as this is really the caſe, I will apply the name of the tree which yields it for a ſpecific one. E. G. *Caout-chouc* of *Urceola elaſtica*, *Caout-chouc* of *Ficus Indica*, *Caout-chouc* of *Artocarpus integrifolia*, &c. &c.

DESCRIP-

DESCRIPTION OF THE PLANT URCEOLA.

PENTANDRIA MONOGYNIA.

Gen. Char. calyx beneath five-toothed; corol one petaled, pitcher ſhaped, with its contracted mouth five toothed: nectary entire, ſurrounding the germs; follicles two, round, drupacious; ſeeds numerous, immerſed in pulp.

Urceola Elaſtica.

Shrubby, twining, leaves oppoſite, oblong, panicles terminal, is a native of *Sumatra, Pullo-pinang*, &c. *Malay* countries.

Stem, woody, climbing over trees, &c. to a very great extent, young ſhoots twining, and a little hairy, bark of the old woody parts thick, dark coloured, conſiderably uneven, a little ſcabrous, on which I found ſeveral ſpecies of moſs, particularly large patches of *lichen*; the wood is white, light and porous.

Leaves, oppoſite, ſhort-petioled, horizontal, ovate, oblong, pointed, entire, a little ſcabrous, with a few ſcattered white hairs on the under ſide.

Stipules, none.

Panicles, terminal, brachiate, very ramous.

Flowers, numerous, minute, of a dull, greeniſh colour, and hairy on the outſide.

Bracts, lanceolate, one at each diviſion and ſubdiviſion of the panicle.

Calyx, perianth, one-leaved, five-toothed, permanent.

Corol, one petaled, pitcher ſhaped, hairy, mouth much contracted, five-toothed, diviſions erect, acute, nectary entire, cylindrick, embracing the lower two-thirds of the germs.

Stamens, filaments five, very ſhort, from the baſe of the corol. Anthers arrow ſhaped, converging, bearing their pollen in two grooves on the inſide, near the apex; between theſe grooves and the inſertions of the filaments they are covered with white ſoft hairs.

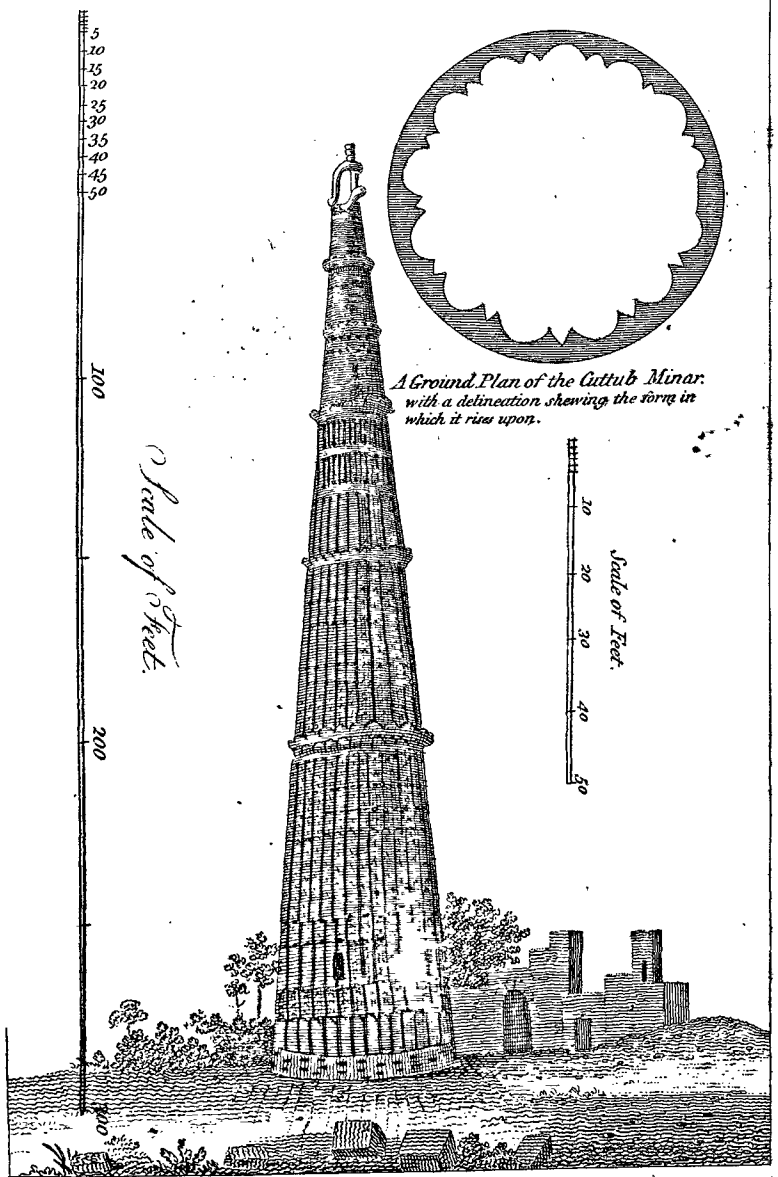
Piſtil, germs two; above the nectary they are very hairy round the margins of their truncated tops. Style ſingle, ſhorter than the ſtamens. Stigma ovate, with a circular band, dividing it into two portions of different colours.

Per. Follicles two, round, laterally compreſſed into the ſhape of a turnip, wrinkled, leathery, about three inches in their greateſt diameters—one celled, two valved.

Seeds, very numerous, reniform, immerſed in firm fleſhy pulp.

EXPLANA-

To face page 727.



A Groind Plan of the Cuttub Minar.
with a delineation shewing the form in
which it rises upon.

Cutub Minar in April 1794.

See the Subject page 921.

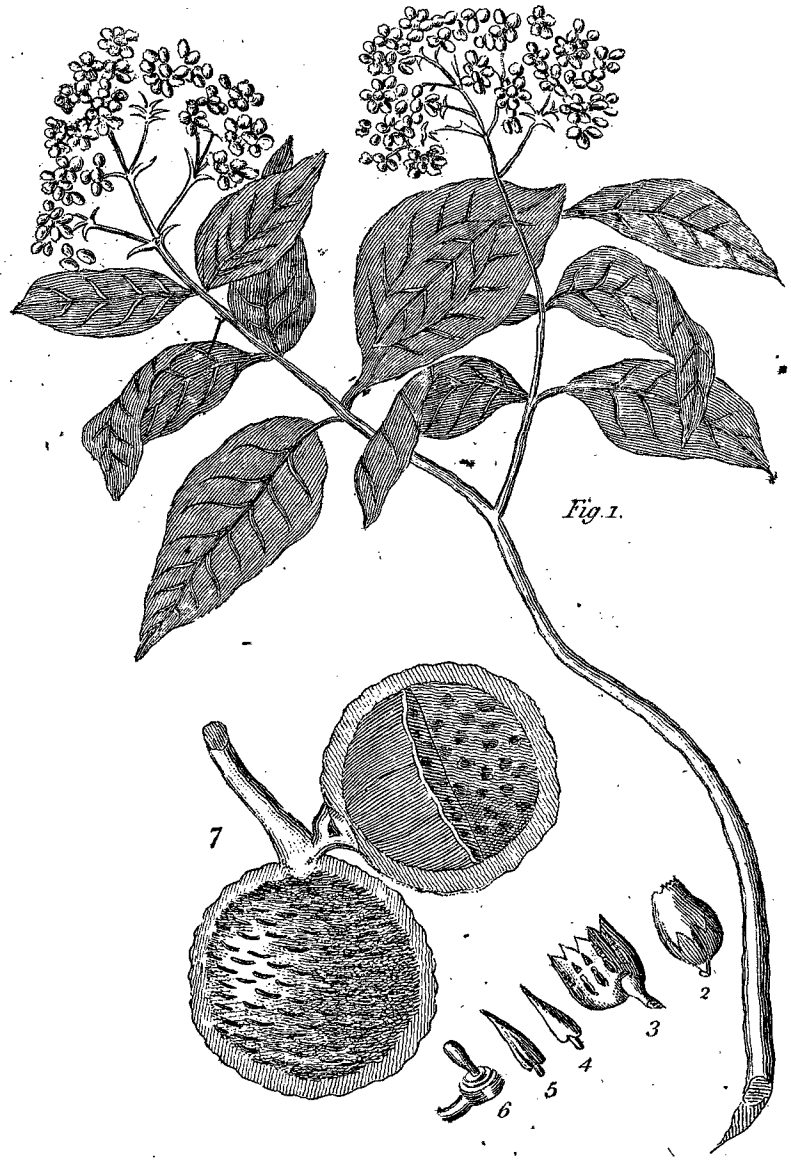


Fig. 1.

Ureolea Elastica.

EXPLANATION OF THE FIGURES.

1. A branchlet in flower, natural ſize.
2. A flower magnified.
3. The ſame laid open, which expoſes to view the ſituation of the ſtamens inſerted into the bottom of the corol, the nectarium ſurrounding the lower half of the two germs, their upper half with hairy margins, the ſtyle and ovate party-coloured; ſtigma appearing above the nectary.
4. Outſide of one of the ſtamens } much magnified.
5. Inſide of the ſame }
6. The nectarium laid open, expoſing to view the whole of the piſtil.
7. The two ſeed veſſels (called by Linnæus *follicles*), natural ſize; half of one of them is removed, to ſhew the ſeed immerſed in pulp. A portion thereof is alſo cut away, which more clearly ſhews the ſituation and ſhape of the ſeed.

From wounds made in the bark of this plant there oozes a milky fluid, which on expoſure to the open air, ſeparates into an elaſtic coagulum, and watery liquid, apparently of no uſe, after the ſeparation takes place. This coagulum is not only like the American *caout-chouc* or Indian rubber, but poſſeſſes the ſame properties, as will be ſeen from the following experiments and obſervations made on ſome which had been extracted from the vine about five months ago. A ball of it now before me, is to my ſenſe, totally void of ſmell, even when cut into, is very firm, nearly ſpherical, meaſures nine and a half inches in circumference, and weighs ſeven ounces and a quarter, its colour on the outſide is that of American *caout-chouc*, where freſh cut into of a light brown colour till the action of the air darkens it; throughout there are numerous ſmall cells, filled with a portion of light brown watery liquid above mentioned. This ball, in ſimply falling from a height of fifteen feet, rebounds about ten or twelve times, the firſt is from five to ſeven feet high, the ſucceeding ones of courſe leſſening by gradation.

This ſubſtance is not now ſoluble in the above mentioned liquid contained in its cells, although ſo intimately blended therewith when firſt drawn from the plant, as to render it ſo thin, as to be readily applied to the various purpoſes to which it is ſo well adapted when in a fluid ſtate.

From what has been ſaid, it will be evident that this *caout-chouc* poſſeſſes a conſiderable ſhare of ſolidity and elaſticity in an eminent degree. I compared the laſt

laſt quality, with that of American *caout-chouc* by taking ſmall ſlips of each, and extending them till they broke; that of Urceola was found capable of bearing a much greater degree of extenſion (and contraction) than the American: however, this may be owing to the time the reſpective ſubſtances have been drawn from their plants.

The Urceola *caout-chouc*, rubs out the marks of a black lead pencil, as readily as the American, and is evidently the ſubſtance of which the Chineſe make their elaſtic rings.

It contains much combuſtible matter, burning entirely away, with a clear flame, emitting a conſiderable deal of dark-coloured ſmoke which readily condenſes into a large proportion of exceeding fine ſoot, or lamp-black; at the ſame time it gives but little ſmell, and that not diſagreeable; the combuſtion is often ſo rapid, as to cauſe drops of a black liquid, very like tar, to fall from the burning maſs; this is equally inflammable with the reſt, and continues when cold in its ſemi-fluid ſtate, but totally void of elaſticity: in *America* the *caout-chouc* is uſed for torches, ours appears to be equally fit for that purpoſe. Expoſed in a ſilver ſpoon to a heat, about equal to that which melts lead or tin, it is reduced into a thick, black, inflammable liquid, ſuch as drops from it during combuſtion, and is equally deprived of its elaſtic powers, conſequently rendered unfit for thoſe purpoſes, for which its original elaſticity rendered it ſo proper.

It is inſoluble in ſpirits of wine, nor has water any more effect on it, except when aſſiſted by heat, and then it is only ſoftened by it.

Sulphuric acid reduced it into a black, brittle, charcoal like ſubſtance, beginning at the ſurface of the *caout-chouc*, and if the pieces are not very thin, or ſmall, it requires ſome days to penetrate to their centre; during the proceſs, the acid is rendered very dark coloured, almoſt black. If the ſulphuric acid is previouſly diluted, with only an equal quantity of water, it does not then appear to have any effect on this ſubſtance, nor is the colour of the liquid changed thereby.

Nitric acid reduced it in twelve hours to a ſoft, yellow, unelaſtic maſs, while the acid is rendered yellow; at the end of two days, the *caout-chouc* had acquired ſome degree of friability and hardneſs. The ſame experiment made on American *caout-chouc* was attended with ſimilar effects. Muriatic acid had no effect on it.

Sulphuric æther only ſoftened it, and rendered the different minute portions it was cut into eaſily united, and without any ſeeming diminution of elaſticity.

Nitric

Nitric æther I did not find a better menſtruum than the vitriolic, conſequently, if the æther I employed was pure, of which I have ſome doubt, this ſubſtance muſt differ eſſentially from that of *America*, which BERNIARD reports to be ſoluble in nitric æther.

Where this ſubſtance can be had in a fluid ſtate, there is no neceſſity for diſſolving or ſoftening it, to render it applicable to the various uſes for which it may be required; but where the dry *caout-chouc* is only procurable, ſulphuric æther promiſes to be an uſeful medium, by which it may be rendered ſo ſoft as to be readily formed into a variety of ſhapes.

Like American *caout-chouc*, it is ſoluble in the eſſential oil of turpentine, and I find it equally ſo in Cajeput oil, an eſſential oil, ſaid to be obtained from the leaves of *Melaleuca Leucadendron*. Both ſolutions appear perfect, thick, and very glutinous. Spirits of wine, added to the ſolution in Cajeput oil, ſoon united with the oil, and left the *caout-chouc* floating on the mixture in a ſoft ſemi-fluid ſtate, which, on being waſhed in the ſame liquor, and expoſed to the air, became as firm as before it was diſſolved, and retained its elaſtic powers perfectly, while in the intermediate ſtates between ſemi-fluid and firm, it could be drawn out into long, tranſparent threads, reſembling, in the poliſh of their ſurface, the fibres of the tendons of animals; when they broke, the elaſticity was ſo great, that each end inſtantaneouſly returned to its reſpective maſs. Through all theſe ſtages the leaſt preſſure with the finger and thumb united different portions, as perfectly as if they never had been ſeparated, and without any clammineſs, or ſticking to the fingers, which renders moſt of the ſolutions of *caout-chout*, ſo very unfit for the purpoſes for which they are required. A piece of catgut covered with the half-inſpiſſated ſolution, and rolled between two ſmooth ſurfaces, ſoon acquired a poliſh, and conſiſtence very proper for bougies. Cajeput oil, I alſo found a good menſtruum for American *caout-chouc*, and was as readily ſeparated by the addition of a little ſpirit of wine, or rum, as the other, and appears equally fit for uſe, as I covered a piece of catgut with the waſhing ſolution, as perfectly as with that of *Urceola*. The only difference I could obſerve, was a little more adheſiveneſs from its not drying ſo quickly; the oil of turpentine had greater attraction for the *caout-chouc*, than for the ſpirits of wine, conſequently remained obſtinately united to the former, which prevented its being brought into that ſtate of firmneſs fit for handling, which it acquired when Cajeput oil was the menſtruum.

The-

The Cajeput ſolution employed as a varniſh did not dry, but remained moiſt and clammy, whereas the turpentine ſolution dried pretty faſt.

Expreſſed oil of olives and linſeed proved imperfect menſtruums while cold, as the *caout-chouc*, in ſeveral days, was only rendered ſoft, and the oils viſcid, but with a degree of heat equal to that which melts tin, continued for about twenty-five minutes, it was perfectly diſſolved, but the ſolution remained thin and void of elaſticity. I alſo found it ſoluble in wax, and in butter in the ſame degree of heat, but ſtill theſe ſolutions were without elaſticity, or any appearance of being uſeful.

I ſhall now conclude what I have to offer on the *caout-chouc*, or *Urceola elaſtica*, with obſerving that ſome philoſophers of eminence have entertained doubts of the American *caout-chouc* being a ſimple vegetable ſubſtance, and ſuſpect it to be an artificial production, an idea which I hope the above detailed experiments will help to eradicate, and conſequently to reſtore the hiſtories of that ſubſtance by M. *De la Condamine* and others, to that degree of credit to which they ſeem juſtly entitled; in ſupport of which it may be further obſerved, that beſides *Urceola elaſtica* there are many other trees, natives of the Torrid Zone, that yield a milky juice, poſſeſſing qualities nearly of the ſame nature, as *artocarpus integrifolia* (common jack tree), *ficus religioſus et Indica*, *Hippomane biglanduloſa*, *Cecropia peltata*, *&c.*

The *caout-chouc* or *ficus religioſa*, the Hindus conſider the moſt tenacious vegetable juice they are acquainted with; from it their beſt bird lime is prepared. I have examined its qualities as well as thoſe of *ficus Indica* and *artocarpus integrifolia*, by experiments, ſimilar to thoſe above-related, and found them triflingly elaſtic when compared with the American and Urceola *caout-choucs*, but infinitely more viſcid than either; they are alſo imflammable, though in a leſs degree, and ſhew nearly the ſame phenomena when immerſed in the mineral acids, ſolution of cauſtic alkali, alkohol, fat, and eſſential oils; but the ſolution in Cajeput oil could not be ſeparated by ſpirits of wine and collected again like the ſolutions of the Urceola and American *caout-choucs*.

XV. SOME

XV.

SOME ACCOUNT OF THE ASTRONOMICAL LABOURS OF JAYASINHA, RAJAH OF AMBHERE, OR JAYANAGAR.

By WILLIAM HUNTER, *Eſq.*

WHILE the attention of the learned world has been turned towards the ſtate of ſcience in remote ages and countries, and the labours of the *Aſiatick* Society have been more particularly directed to inveſtigate the knowledge attained by the ancient inhabitants of Hinduſtan; it is a tribute due to a congenial ſpirit, to reſcue from oblivion thoſe among their deſcendants in modern times, who, riſing ſuperior to the prejudices of education, of national pride and religion, have ſtriven to enrich their country with ſcientific truth derived from a foreign ſource.

The name of JAYASINHA is not unknown in *Europe*; it has been conſigned to immortality by the pen of the illuſtrious Sir WILLIAM JONES: but yet, the extent of his exertions in the cauſe of ſcience is little known; and the juſt claims of ſuperior genius and zeal will, I hope, juſtify my taking up a part of the Society's time with a more particular enumeration of his labours.

JEY-SING or JAYASINHA ſucceeded to the inheritance of the ancient Rajahs of Ambhere, in the year *Vicramadittya* 1750, correſponding to 1693 of the *Chriſtian* æra. His mind had been early ſtored with the knowledge contained in the Hindu writings, but he appears to have peculiarly attached himſelf to the mathematical ſciences, and his reputation for ſkill in them ſtood ſo high, that he was choſen by the Emperor MAHOMMED SHAH to reform the calendar, which, from the inaccuracy of the exiſting tables, had ceaſed to correſpond with the actual appearance of the heavens. JAYASINHA undertook the taſk, and conſtructed a new ſet of tables, which in honour of the reigning prince he named *Zeej Mahommedſhahy*. By theſe almanacks are conſtructed at *Dehly*, and all aſtronomical computations made at the preſent time. The beſt and moſt authentic account of his labours for the completion of this work and the advancement of aſtronomical knowledge is contained in his own preface to the *Zeej Mahommedſhahy*, which follows with a literal tranſlation.

بسم الله الرحمن الرحيم

ثناهي كه خرد خورده بين هند سان
عقده كشا در اداي دقيقه از ان زبان
اعتراف بعجز و قصور كشايد و ستايشي
كه فكر اصابت قرين را صدان فلك
پيماي يا ولين در جهٔ آن شرح و
بيان اقرار به تحير و نارسا بي نمايد
نثاريار كاه شبهثا هي كه طباق سموات
بكند و رقيست چند از دفتر ديوان
قدرت او تقدس اسماهٔ وانحم و خورشيد
آسمان پيوند دينار و درهمي است
معزود از پنه خازن سلطنت او تعالت
الاه اكر صفحات زنج اقاليم زمين را
جبدا ول انهار و رقوم نجوم و اشجار
مجلي و مزين نميساخت هيچ مستخر
جي اسجراج

تقويم انواع حبب و ثمار نتوا نتي
نمود واكر راه ظهمت اباد عناصر رانمشاعل
ثوابت وسيا رتابدار و مهتاب وآفتاب
نوربار ظاهر نميكرد رسيدن بسر منزل
مقصود و نجات از نار سا مي غور
محيط قدر نش ابر خس خس است بر
هم زن دست افسوس و در اند يسه ار
تفاع قدرش بطلميوس خفاشي از رسيدن

'*Praiſe* be to God, ſuch that the
'minutely diſcerning genius of the
'profoundeſt geometers in uttering
'the ſmalleſt particle of it, may open
'the mouth in confeſſion of inability;
'and ſuch adoration, that the ſtudy
'and accuracy of aſtronomers who
'meaſure the heavens, on the firſt ſtep
'towards expreſſing it, may acknow-
'ledge their aſtoniſhment and utter
'inſufficiency. Let us devote our-
'ſelves at the altar of the King of
'Kings, hallowed be his name! in the
'book of the regiſter of whoſe power
'the lofty orbs of heaven are only a
'few leaves; and the ſtars and that
'heavenly courſer the ſun, a ſmall
'piece of money in the treaſury of
'the empire of the Moſt High.

'If he had not adorned the pages of
'the table of the climates of the earth
'with the lines of rivers, and the
'characters of graſſes and trees, no
'calculator could have conſtructed the
'almanack of the various kinds of
'ſeeds and of fruits which it contains.
'And if he had not enlightened the
'dark path of the elements with the
'torches of the fixed ſtars, the pla-
'nets, and the reſplendent ſun and
'moon, how could it have been poſ-
'ble to arrive at the end of our wiſhes,
'or to eſcape from the labyrinth, and
'the precipices of ignorance?

'From inability to comprehend the 'all-encompaſſing beneficence of his 'power, HIPPARCHUS is an ignorant 'clown, who wrings the hands of vex-'ation; and in the contemplation of 'his exalted majeſty, PTOLEMY is a 'bat, who can never arrive at the ſun 'of truth: the demonſtrations of EU-'CLID are an imperfect ſketch of the 'forms of his contrivance; and thou-'ſands of JEMSHED CASHY, or NU-'SEER TOOSEE, in this attempt would 'labour in vain.

با فتلب حقیقت مایوس بر اهین
اقلیدس در بیان اشکال صنایع او حر
في ناتمام و حزار ان جمشید کاشي
چون نصیر طوسی در پختن سور اي
خام امابعد خیر

'But ſince the well-wiſher of the 'works of creation, and the admiring 'ſpectator of the theatre of infinite 'wiſdom and providence, *Servai-Jey-'ſing* from the firſt dawning of reaſon 'in his mind, and during its progreſs 'towards maturity, was entirely de-'voted to the ſtudy of mathematical 'ſcience, and the bent of his mind 'was conſtantly directed to the ſolu-'tion of its moſt difficult problems; 'by the aid of the ſupreme artificer 'he obtained a thorough knowledge 'of its principles and rules. He found 'that the calculation of the places of 'the ſtars as obtained from the tables 'in common uſe, ſuch as the new ta-'bles of SEID GOORGANEE and KHA-'CANEE, and the *Tuſ,heelat-Mula-'Chand Akber-ſhahee*, and the Hindu 'books, and the European tables, in

خواه اصناف آذر بنش و تباشاي
کان کاه دانش و بینش سواي جینک
از بدو فطرت و عنعوان سعور بغن
ریاضي مشعوف و ما لوف بود و همو
اره عنان طبعش بکشف دقایق و حل
غوامض آن مصروف بتاءید کرد کار از
اصول و قوانین آن خطي وافر و نصیبی
کامل حاصل کرد چنان یافت که
استخراج تقادیم کواکب که از زیجهاي
متعارف مثل زیج جدید سعید کور
کاني و خاقاني و تسهیلات ملا چاند
اکبر شاهی و کتبهاي هندي و زیج
فرنکی میشود اکثر و اغلب اوقات دور از
مر صود و عیان مي یابند خصو صا
روته اهله که حناب آن با مشا هده کم
موافقت میکنند

'very

'very many caſes, give them widely
'different from thoſe determined by
'obſervation: eſpecially the appear-
'ance of the new moons, the compu-
'tation of which does not agree with
'obſervation.

'Seeing that very important affairs
'both regarding religion and the ad-
'miniſtration of empire depend upon
'theſe; and that in the time of the
'riſing and ſetting of the planets,
'and the ſeaſons of the eclipſes of the
'ſun and moon, many conſiderable
'diſagreements, of a ſimilar nature,
'were found; he repreſented it to his
'majeſty of dignity and power, the
'ſun of the firmament of felicity and
'dominion, the ſplendor of the fore-
'head of imperial magnificence, the
'unrivalled pearl of the ſea of ſove-
'reignity, the incomparably brighteſt
'ſtar of the heaven of empire, whoſe
'ſtandard is the Sun, whoſe retinue
'the Moon; whoſe lance is MARS,
'and his pen like MERCURY; with
'attendants like VENUS; whoſe threſh-
'old is the ſky, whoſe ſignet is JUPI-
'TER; whoſe centinel SATURN; the
'Emperor deſcended from a long race
'of Kings; an ALEXANDER in dig-
'nity; the ſhadow of GOD; the victo-
'rious king, *Mahommed Shah*, may he
'ever be triumphant in battle!

'He was pleaſed to reply, ſince you,

و حال آنکه کار هاي سترک ارباب
مال و نحل و اصحاب دین و دول
بدان منوط و مربوط است و همین طور
در او قات ظهور و خفاي کواکب سیار
ات و ازمنه کسوفات و خسوفات اکثر تفاوت
فا حش رومیدهد اینمعنیرا ابهت و
کامکاری غره ناصیه عظمت و شهر بعرض
حضرت قدر قدرت مهر سپهر یاري دریکتاي
بحر خلافت کبري دري بی همتاي
فلک سلطنت عظمي خورشید علم مر
حشم مرج رمح عطار دقلم ناهید خدم
سپهر آستان مشتري نکین کیوان
پاسبان السلطان ابن السلطان الخاقان
ابن الخاقان سکندر جاه ظل اسباد
شاه غازي محمد شاه لازال مظفرا في
المعارک والمغاري رسانید

فرمودند که چون آن داناي اسرار

'who

'who are learned in the myſteries of 'ſcience, have a perfect knowledge of 'this matter; having aſſembled the aſ-'tronomers and geometricians of the 'faith of ISLAM and the *Bramins* and '*Pandits*, and the aſtronomers of *Eu-'rope*, and having prepared all the ap-'paratus of an obſervatory, do you ſo 'labour for the aſcertaining of the 'point in queſtion, that the diſagree-'ment between the calculated times 'of thoſe phenomena and the times 'in which they are obſerved to hap-'pen may be rectified.

را درین امر مهارت تمام است مهندسان و منجمان فرقر اسلام و برهمنان و پند تال و منجمان فربکرا جمع نموده و آلات رصدي ساخته بحقیقت کار وارسیده چنان سعي نماید که این اختلال که در زمان محسوب امور مربوره و وقت مرصود آنها واقع میشود مرتفع کردد

'Although this was a mighty taſk, 'which during a long period of time 'none of the powerful Rajahs had 'proſecuted; nor, among the tribes 'of ISLAM, ſince the time of the 'martyr-prince, whoſe ſins are for-'given, MIRZA ULUGA BEG, to the 'preſent, which comprehends a pe-'riod of more than three hundred 'years, had any one of the kings, 'poſſeſſed of power and dignity, turn-'ed his attention to this object; yet, 'to accompliſh the exalted command 'which he had received, he (*Jey-ſing*) 'bound the girdle of reſolution about 'the loins of his ſoul, and conſtructed 'here (at Dehly) ſeveral of the inſtru-'ments of an obſervatory, ſuch as had 'been erected at *Samarcand*, agreeably 'to the *Muſulman* books: ſuch as *Za-'tulhuluck*, of braſs, in diameter three

هرچند که این امر خطیر بود ومدت مدید شده که از راجهاي دوالا قتدار کي پیر امون ان نکر دیده و در فر قه اهل اسلام هم از زمان شاه مرزا انع بیک تا این زمان که زیاده از سیصد مال کنر شته هیچ یکي از سلا طین ذي شان وضا حب ثر و تان بلند مکان باین کار میتو جه نکشته از بر اي بجا آودن فر مورده ار فع اعلي شرانجام امر ما موررا نطاق همت بر میان جان بسته چندي از آلات رصدي ما نند انکه در سمرقند ساخته بود ند ازروی کتب اسلام در ایجاهم ساخت ذات الحلق بر نحبي بقطر سه کز رایج این عصر که قریب ضعف ذراع اهل شرع است و ذات الشعبتین و ذات الثقتین و سدس فخري و شامله لیکن چون آلهاي بر نجیرا بنبب

'guz

'*guz* of the meaſure now in uſe, '(which is nearly equal to two cubits 'of the *Coram*,) and *Zat-ul-ſhobetein*, 'and *Zat-ul-ſuchetein*, and *Suds-Fuk-'heri*, and *ſhamlah*. But finding that 'braſs inſtruments did not come up to 'the ideas which he had formed of 'accuracy, becauſe of the ſmallneſs of 'their ſize, the want of diviſion into 'minutes, the ſhaking and wearing of 'their axes, the diſplacement of the 'centres of the circles, and the ſhift-'ing of the planes of the inſtruments; 'he concluded that the reaſon why 'the determinations of the ancients, 'ſuch as HIPPARCHUS and PTOLEMY, 'proved inaccurate, muſt have been 'of this kind; therefore he conſtruct-'ed in *Dar-ul-khelâfet Shah-Jehana-'bad*, which is the ſeat of empire and 'proſperity, inſtruments of his own 'invention, ſuch as *Jey-pergâs* and '*Ram-junter* and *Semrât-junter*, the 'ſemidiameter of which is of eigh-'teen cubits, and one minute on it is 'a barley-corn and a half; of ſtone 'and lime, of perfect ſtability, with 'attention to the rules of geometry, 'and adjuſtment to the meridian, and 'to the latitude of the place, and with 'care in the meaſuring and fixing of 'them; ſo that the inaccuracies from 'the ſhaking of the circles, and 'the wearing of their axes, and diſ-'placement of their centres, and the

خردي وعدم تقيم بدقايق و لرزش
خور دن و سوده كشتن قطبهاي و
بيجا شدن مر كز دوا ير واختلال و
ضع مقرري مطلوب كما ينغي متبرمد
عانيافت معلوم كرد كه سبب در
ست نيامدن مقر رات قد ما مانند ابر
خس و بطلميوس امثال همين امور
خوا هد بود بنا بران در دار الخلافة
شاه جهان آباد كه محل دو لتو اقبال
است التهلي اختر اعي خود مثل حي
پركاس و رام جنتر و سمر اتهه جنتر
كه نصف قطر آن هز ده ذراع است و
دقيقه آن يك و نيم شعيره ميشود از
سنك و آهك باستحكام تمام و رزانت
مثالا كلام نار عليت قو انين هند سي
و تحقيق خط تصف النها و عرض
بلدو احتياط در پيما يش و نصب آنهاتار
كرده تابدين سبب خلل لر زش حلقهاي
دوابر و سايدن اقطاب و بيجا شدن مر
اكز و تفاوت دقايق بر طرف كر ديد

'inequality

'inequality of the minutes, might be
'corrected.

'Thus an accurate method of con-
'ſtructing an obſervatory was eſta-
'bliſhed; and the difference which
'had exiſted between the computed
'and obſerved places of the fixed ſtars
'and planets, by means of obſerving
'their mean motions and aberrations
'with ſuch inſtruments, was removed.
'And, in order to confirm the truth
'of theſe obſervations, he conſtructed
'inſtruments of the ſame kind in
'*Suvaï Jeypoor*, and *Matra*, and *Be-*
'*nares*, and *Oujein*.—When he com-
'pared theſe obſervatories, after al-
'lowing for the difference of longi-
'tude between the places where they
'ſtood, the obſervations and calcu-
'lations agreed.—Hence he deter-
'mined to erect ſimilar obſervatories
'in other large cities, that ſo every
'perſon who is devoted to theſe ſtu-
'dies, whenever he wiſhes to aſcer-
'tain the place of a ſtar, or the rela-
'tive ſituation of one ſtar to another,
'might by theſe inſtruments obſerve
'the phenomena. But, ſeeing that
'in many caſes it is neceſſary to de-
'termine paſt or future phenomena,
'and alſo, that in the inſtant of their
'occurrence, clouds or rain may pre-
'vent the obſervation, or the power
'and opportunity of acceſs to an ob-
'ſervatory may be wanting, he deemed

وبراي رصد طريق مستقيم پيد اكشت
و تغاوتي كه در محسوب نوابت و
سيار و مرصود آنها ميشد با سقانت
چنين آلات او ساط و حركات واقعي
آنها دانسته مر تفع ساخت وبراي
استشهاد حقنت مدعا بهين قسم آلات
در سواي جي پور و متهرا و بنارس
و اوجين هم بنا كرده شد چون
هاي اين امكنه را بعد از تفاوت
ملا حظر اطوال بلاد مقابله كردند
محسوب بامر صود يكي امد قصد بر
ان مصمم شد كه همين طور آلات در
شهر هاي كلان ديكر هم ساخته وبر
داخته كردد تا هر كه آشناي اين
فن باشد هر كاه كه موضع كو
كبي با وضع كو كبي بسته بكوكب
ديكر خواهد كه معلوم كند ازين
آلتها بعيان مشاهده نمايد اما چون اكر
اجتنياج واقع ميشود كه اوضاع مستقبله
و حالات ماضيه معلوم نمايند و نيز در
وقت مطلوب كاه باشد كه ابر و باران
مانع رصد شود يا اقتدار و فرصت و
صل بر صد خلنه مفقور باشر زيچي
ساخته بود كه از روي آن تغو
يهاي هر روزه كواكب سال بسال
استخراج نموده در دفتر ثبت نمايد كه
در هر وقت معد باشد

'it

'it neceſſary that a table be con-
'ſtructed, by means of which the
'daily places of the ſtars being calcu-
'lated every year, and diſpoſed in a
'calendar, may be always in readi-
'neſs.

'In the ſame manner as the geo-
'meters and aſtronomers of antiquity
'beſtowed many years on the prac-
'tice of obſervation, thus, for the
'eſtabliſhment of a certain method,
'after having conſtructed theſe in-
'ſtruments, the places of the ſtars
'were daily obſerved. After ſeven
'years had been ſpent in this em-
'ployment, information was received,
'that about this time obſervatories
'had been conſtructed in *Europe*, and
'that the learned of that country
'were employed in the proſecution of
'this important work; that the bu-
'ſineſs of the obſervatory was ſtill
'carrying on there, and that they
'were conſtantly labouring to deter-
'mine with accuracy, the ſubtleties
'of this ſcience. For this reaſon,
'having ſent to that country ſeveral
'ſkilful perſons along with PADRE
'MANUEL, and having procured the
'new tables which had been con-
'ſtructed there thirty years * before,
'and publiſhed under the name of

چون مهند سان پیشین و راصدان
شایف سا لهاي بسیار در شغل رصد
بسر برده اند بنابر طریق معهود تعد
تیار ساختن این آلات هر روز در رصد
کواکب کرده نقید میسد چون گشت
تیکار هفت سال گذشت مسموع گشت
تحقیق وقایف این علم اند بنا علیه
از ینجا چند کس معتمد علم داناي
این فن رابر فاقت منویل پادري بان
سبت فر ستاده زیچ جدیل آنجا که با
سم لیر تبیه یافیه و سي سال
گذشته که بتاز کی مر تب گشته باز
پچهاي سا بق آن دیار طلبد اشته ملا
که در نزدیک باین زمان در فرنگ
هم آلات رصدي در ست کرده اند و
اکابر انجا و رانایان ایشان بباینکارف
مشتغل ومتو جه اند کار خانه رصد در
انجا هنوز هم جا ریست و همو اره در

* JEY-SING finiſhed his tables in the year of the Hegira 1141, or A. D. 1728.

'*Leyyer* *, as well as the European 'tables anterior to thoſe; on examining and comparing the calculations of 'theſe tables, with actual obſervation, 'it appeared there was an error in the 'former, in aſſigning the moon's 'place, of half a degree: although 'the error in the other planets was 'not ſo great, yet the times of ſolar 'and lunar eclipſes he found to come 'out later or earlier than the truth, 'by the fourth part of a *g,hurry* or 'fifteen *puls* †. Hence he concluded that, ſince in *Europe*, aſtronomical inſtruments have not been conſtructed of ſuch a ſize, and ſo large 'diameters, the motions which have 'been obſerved with them may have 'deviated a little from the truth; 'ſince, in this place, by the aid of the 'unerring artificer, aſtronomical inſtruments have been conſtructed 'with all the exactneſs that the heart 'can deſire; and the motions of the 'ſtars have, for a long period, been 'conſtantly obſerved with them; 'agreeably to obſervation the mean 'motions and equations were eſtabliſhed. He found the calculation 'to agree perfectly with the obſervation; and although even to this day 'the buſineſs of the obſervatory is

حظر نموده چون محسوب آبرابامر صود
لحاظ کرده شده در تقویم قمر تفاوت
نیم در جر ظا هر کردید اگرچه در
سیارات دیکر آنقدر نبود و از منه کسو
فات و خسو فاترا تاریخ دقیقه یوم
که عبارت از پانزده پل با شد پیش
و پس یافت دانست که چون درفرنک
الات رصدي باین برزکي و اقطار نسا
خته اند حرکاتي که بتو سطآن در
یافته اند پارهٔ از تحقیق دور افتاده
چون بیا یدکار ساز حقیقي اینجا
آلات رصدي بحسب خواهش دل
چنانچه باید مر تب شد و تامدت
مدید تحقیق حرکات کواکب و
رصد آن نموده ازروي آن اوساط و
تعدیلات براي آنها مقرر کست
محسوب رابامر مودبي تفاوت یا فت
و هر چند که هنوز هم کار رصد
جاریست زیچي بنام نامي حضرت ظل
الهي مشتمیل اصوب طرق واحسن و
جوه درست کرده شد که چون بدان
استخراج تقاویم ورو یت اهله و
کسوفات و خسو فات وقرانات نمایند
اقرب به تحقیق با شد چنانکه اینمعني
بالفعل درصد خانه مشا هده ومبین
میشو دناید که ارباب این فن در مقا
بله این نعمت عظمي بد عا دوام دولت

* De la Hire publiſhed the firſt edition of his tables in 1687, and the ſecond in 1702.

† 'Equal to ſix minutes of our time: an error of three minutes in the moon's place would occaſion this difference in time, and as it is improbable that La Hire's tables ſhould be inaccurate to the extent mentioned above, 'of half a degree, I conceive there muſt be an error in the original.'

و خلافت چین باد شاه عالم باه
مشغول کشته سعادت دارین حاصل
نما یند

'carried on, a table under the name 'of his Majeſty, the ſhadow of God, 'comprehending the moſt accurate 'rules, and moſt perfect methods of 'computation, was conſtructed; that 'ſo, when the places of the ſtars, and 'the appearance of the new moons, 'and the eclipſes of the ſun and moon, 'and the conjunctions of the heavenly 'bodies, are computed by it, they 'may arrive as near as poſſible to the 'truth, which, in fact, is every day 'ſeen and confirmed in the obſerva-'tory.

'It therefore behoveth thoſe who 'excel in this art, in return for ſo 'great a benefit, to offer up their 'prayers for long continuance of the 'power and proſperity of ſo good a 'King, the ſafeguard of the earth, 'and thus obtain for themſelves a 'bleſſing in both worlds.'

The five obſervatories conſtructed by *Jayaſinha* ſtill exiſt, in a ſtate more or leſs perfect. Having had the opportunity of examining four of the number, I ſhall ſubjoin a ſhort deſcription of them:

The obſervatory at *Dehly* is ſituated without the walls of the city, at the diſtance of one mile and a quarter; it lies S. 22 deg. W. from the *Jummah Musjid*, at the diſtance of a mile and three quarters, its latitude 28 deg. 37 min. 37 ſec. N. * longitude 77 deg. 2 min. 27 ſec. E. from Greenwich; it conſiſts of ſeveral detached buildings.

1. A large Equatorial Dial, of the form repreſented at the letter A in Sir *Robert Barker's* deſcription of the Benares obſervatory (Ph. Tranſ. vol. LXVII.); its form is pretty entire, but the edges of the gnomon, and thoſe of the circle on which the

* The latitude aſſigned to it in the *Zeej Mahommedſhahy* is 28 deg. 37 min.

degrees

degrees were marked, are broken in ſeveral places. The length of the gnomon, meaſured with a cord, I found to be 118 feet ſeven inches, reckoning its elevation equal to the latitude of the obſervatory, 28 deg. 37 min.; this gives the length of the baſe 104 feet one inch, and the perpendicular height 56 feet nine inches; but, the ground being lower at the north end, the actual elevation at the top of the gnomon above it is more than this quantity. This is the inſtrument called by *Jayaſinha*, *ſemrat Yunter* (the prince of dials). It is built of ſtone, but the edges of the gnomon and of the arches, where the graduation was, were of white marble, a few ſmall portions of which only remain.

2. At a little diſtance from this inſtrument towards the N. W. is another equatorial dial, more entire, but ſmaller, and of a different conſtruction. In the middle ſtands a gnomon, which, as uſual in theſe buildings, contains a ſtair up to the top. On each ſide of this gnomon are two concentric ſemicircles, having for their diameters the two edges of the gnomon; they have a certain inclination to the horizon: at the ſouth point, I found it to be twenty-nine degrees (nearly equal to the latitude,) but at ſome diſtance from that point it was thirty-three degrees. Hence it is evident, that they repreſent meridians, removed by a certain angle upon the meridian of the place. On each ſide of this part is another gnomon, equal in ſize to the former; and to the eaſtward and weſtward of them, are the arches on which the hours are marked. The uſe of the centre part above deſcribed, I have never been able to learn. The length of the gnomon, which is equal to the diameter of the outer circle, is thirty-five feet four inches. The length of a degree on the outer circle is 3.74 inches. The diſtance between the outer and inner circle is two feet nine inches. Each degree is divided into ten parts, and each of theſe is ſubdivided into ſix parts or minutes.

3. The north wall of this building connects the three gnomons at their higheſt end, and on this wall is deſcribed a graduated ſemicircle, for taking the altitudes of bodies, that lie due eaſt or due weſt from the eye of the obſerver.

4. To the weſtward of this building, and cloſe to it, is a wall, in the plane of the meridian, on which is deſcribed a double quadrant, having for centres the two upper corners of the wall, for obſerving the altitudes of bodies paſſing the meridian, either to the north or ſouth of the zenith. One degree on theſe quadrants meaſured 2.833 inches, and theſe are divided into minutes.

5. To the ſouthward of the great dial are two buildings, named *Uſtuanah*. They exactly reſemble one another, and are deſigned for the ſame purpoſe,

purpoſe, which is to obſerve the altitude and azimuth of the heavenly bodies, they are two in number, on purpoſe that two perſons may obſerve at the ſame time, and ſo compare and correct their obſervations.

Theſe buildings are circular, and in the centre of each is a pillar of the ſame height with the building itſelf, which is open at top. From this pillar, at the height of about three feet from the bottom, proceed radii of ſtone horizontally to the circular wall of the building. Theſe radii are thirty in number; the ſpaces between them are equal to the radii themſelves, which meaſure in breadth as they recede from the pillar, ſo that each radius and each intermediate ſpace forms a ſector of ſix degrees.

The wall of the building at the ſpaces between the radii forms receſſes internally, being thinner at thoſe places than where it joins the radii. In each of theſe receſſes are two windows, one over the other; and in the ſides of the receſs are ſquare holes, at about the diſtance of two feet, above one another, by means of which a perſon may climb to the top. On the edges of theſe receſſes are marked the degrees of the ſun's altitude, or rather the tangents of thoſe degrees ſhewn by the ſhadow of the centre pillar; and numbered from the top, from one degree to forty-five. For the altitude when the ſun riſes higher, the degrees are marked on the horizontal radii; but they are numbered from the pillar outwards, beginning with one, ſo that the number here pointed out by the ſhadow, is the complement of the altitude. Theſe degrees are ſubdivided into minutes. The ſpaces on the wall, oppoſite to the radii, are divided into ſix equal parts, or degrees, by lines drawn from top to bottom, but theſe degrees are not ſubdivided. By obſerving on which of theſe the ſhadow of the pillar falls, we may determine the ſun's azimuth. The parts on the pillar oppoſite to the radii, and the intermediate ſpaces, in all ſixty, are marked by lines reaching to the top, and painted of different colours.

In the ſame manner that we determine the altitude and azimuth of the ſun, we may alſo obſerve thoſe of the moon, when her light is ſtrong enough to caſt a ſhadow. Thoſe of the moon at other times, or of a ſtar, may alſo be found by placing the eye either on one of the radii, or at the edge of one of the receſſes in the wall (according as the altitude is greater or leſs than forty-five degrees,) and moving along till the top of the pillar is in a line with the object. The degree at which the eye is placed will give the altitude, or its complement, and the azimuth is known from the number of the radius to which the eye is applied.

The

The dimenſions of the building are as follow:

	Ft.	In.
Length of the radius from the circumference of the centre pillar to the wall; being equal to the height of the wall above the radii . . .	24	$6\frac{1}{2}$
Length of one degree on the circular wall		$5\frac{3}{4}$
Which gives for the whole circumference	172	6
Circumference of the pillar (meaſured by a handkerchief carried round it)	17	$0\frac{1}{4}$
Deduced from its coloured diviſions meaſured with compaſſes . . .	17	$2\frac{1}{4}$

I do not ſee how obſervations can be made when the ſhadow falls on the ſpaces between the ſtone radii or ſectors; and from reflecting on this, I am inclined to think, that the two inſtruments, inſtead of being duplicates, may be ſupplementary one to the other; the ſectors in one correſponding to the vacant ſpaces in the other, ſo that in one or other an obſervation of any body viſible above the horizon, might at any time be made. This point remains to be aſcertained.

6. Between theſe two buildings and the great equatorial dial, is an inſtrument called *ſhamlah*. It is a concave hemiſpherical ſurface, formed of maſon-work, to repreſent the inferior hemiſphere of the heavens. It is divided by ſix ribs of ſolid work, and as many hollow ſpaces; the edges of which repreſent meridians at the diſtance of fifteen degrees from one another. The diameter of the hemiſphere is twenty-ſeven feet five inches.

The next in point of ſize and preſervation among thoſe which I have had the opportunity of examining, is the obſervatory at Oujein. It is ſituated at the ſouthern extremity of the city in the quarter called *Jeyſingpoorah*, where are ſtill the remains of a palace of *Jayaſinha*, who was ſoubahdar of Meliva, in the time of *Mahommed Shah*. The parts of it are as follow:

1. A double mural quadrant, fixed in the plane of the meridian. It is a ſtone wall, twenty-ſeven feet high, and twenty-ſix feet in length. The eaſt ſide is ſmooth and covered with plaiſter, on which the quadrants are deſcribed; on the weſt ſide is a ſtair, by which you aſcend to the top. At the top, near the two corners, and at the diſtance of twenty-five feet one inch from one another, were fixed two ſpikes of iron, perpendicular to the plane of the wall; but theſe have been pulled out. With theſe points as centres, and a radius equal to their diſtance, two arcs of 90 degrees are deſcribed interſecting each other.

One diviſion in the upper circle is equal to ſix degrees; in the ſecond one degree, (the extent contained in the ſpecimens); in the third ſix minutes, and in the fourth one minute.

minute. One of theſe arcs ſerves to obſerve the altitude of any body to the north, and the other of any body to the ſouth of the zenith; but the arc which has its centre to the ſouth, is continued to the ſouthward beyond the perpendicular, and its centre about half a degree, by which, the altitude of the ſun, can at all times be taken on this arc. With this inſtrument *Jayaſinha* determined the latitude of Oujein to be 23° 10′ N.

Suppoſing the latitude, here meant, to be (as is moſt probable) that of the obſervatory, I was anxious to compare it with the reſult of my own obſervations (Aſiatick Reſearches, vol. IV.), and, for that purpoſe, I made an accurate meaſurement from our camp, at SHAH DAWUL's *durgah*, to the mural quadrant of the obſervatory. I found the ſouthing of the quadrant from our camp to be one mile 3.9 furlongs, which makes 1′ 17″ difference of latitude.

The latitude of the camp, by medium of two obſervations, of the ſun, is	23°	11′	54″
Deduced from the medium of ſix obſervations of fixed ſtars, taken at RANA KHAN's garden, at different latitude 7″ S.	23	11	45
From obſervation of the ſun at the ſame place	23	11	37
From two obſervations of , taken at the houſe in town, at different latitude, 32″ S.	23	11	28
			164
Latitude of *Shah Dawul's* durgar, by medium of all obſervations	23	11	41
Difference of latitude, camp and obſervatory		1	17
Gives the latitude of the obſervatory	23	10	24

A cloſer coincidence could not be expected, eſpecially as no account is made of ſeconds in any of the latitudes given in the *Zeej Mahommedſhahy*. But, if farther refinement were deſired, we might account for the difference, by the Hindu obſervers not having made any allowance for refraction. Thus, if we ſuppoſe the ſun's altitude to have been obſerved, when on the equator, the reſult will be as follows:

Latitude of the obſervatory	23°	10′	24″
Its complement, being the true altitude of the ſun on the equator	66	49	36
Refraction			24
Sun's apparent altitude	66	50	0
Latitude of the obſervatory from obſervation of the ſun upon the equator without allowing for refraction	23	10	0

But

But (beſides that I do not pretend, that the mean of my own obſervations can be relied on, to a leſs quantity than fifteen ſeconds,) when we conſider, that a minute on the quadrant of the obſervatory is hardly .09 of an inch, without any contrivance for ſubdiviſion, we ſhall find it needleſs to deſcend into ſuch minuteneſs: and as *Jayaſinha* had European obſervers, it is not likely the refraction would be neglected, eſpecially as the *Zeej Mahommedſhahy* contains a table for that purpoſe. This table is an exact copy of M. De La Hire's, which may be ſeen in the Encyclopedie, art. Refraction.

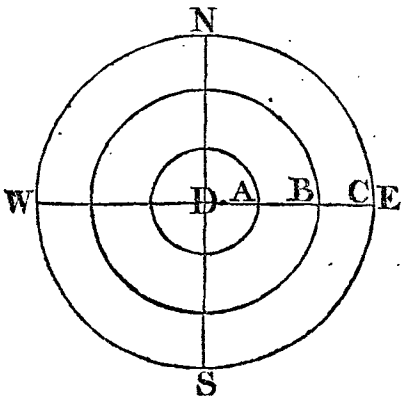
This inſtrument is called, *Yám-utter-bhitti-yunter*. With one of the ſame kind at Dehly, (No. 4, Dehly obſervatory,) in the year 1729, *Jayaſinha* ſays, he determined the obliquity of the ecliptic to be 23° 28′. In the following year (1730) it was obſerved by Godin 23° 28′ 20″.

2. On the top of the mural quadrant is a ſmall pillar, the upper circle of which being two feet in diameter, is graduated for obſerving the amplitude of the heavenly bodies, at their riſing and ſetting; it is called *Agra Yunter*. The circles on it are very much effaced.

3. About the middle of the wall the parapet to the eaſtward is increaſed in thickneſs, and on this part is conſtructed a horizontal dial called *Puebha Yunter*. Its length is two feet four inches and a half, but the diviſions on it are almoſt totally effaced.

4. *Dig anſa Yunter*, a circular building, 116 feet in circumference. It is now roofed with tiles, and converted into the abode of a Hindu deity, ſo that I could not get acceſs to examine its conſtruction; but the following account of it is delivered in the *Sem'rat Siddhanta*, an aſtronomical work compoſed under the inſpection of *Jayaſinha*.

On a horizontal plane deſcribe the three concentric circles A B C, and draw the north, ſouth, eaſt, and weſt lines, as in the figure. Then, on A build a ſolid pillar,



of any height at pleaſure; on B build a wall, equal in height to the pillar at A; and on C a wall of double that height. From the north, ſouth, eaſt, and weſt points, on the top of the wall C ſtretch the threads N. S. W. E. interſecting each other in the point D, directly above the centre of the pillar A. To the centre of that pillar faſten a thread, which is to be laid over the top of the wall C, and to be ſtretched by a weight ſuſpended to the other end of it.

The

The uſe of this inſtrument is for obſerving the azimuth *(dig-anſa)* of the heavenly bodies; and the obſervations with it are made in the following manner: The obſerver ſtanding at the circumference of the circle B, while an aſſiſtant manages the thread moveable round the circle C, places his eye ſo that the object to be obſerved, and the interſection of the threads N. S. W. E. may be in one vertical plane, while he directs the aſſiſtant to carry the moveable thread into the ſame plane. Then the degrees on the circle C cut off by the moveable thread, give the azimuth required. In order to make this obſervation with accuracy, it ſeems neceſſary that the point D, and the centre of the pillar A, ſhould be connected by a thread perpendicular to the horizon; but no mention is made of this in the original deſcription.

5. *Náree-wila-yunter*, or equinoctial dial, is a cylinder, placed with its axis horizontally, in the north and ſouth line, and cut obliquely at the two ends, ſo that theſe ends are parallel to the equator *(Náree-wila)*. On each of theſe ends a circle is deſcribed, the diameter of which in this inſtrument is 3 feet 7 inches and a half. Theſe are divided into *g,hurries*, of ſix degrees, into degrees and ſubdiviſions, which are now effaced. In the centre of each circle, was an iron pin (now wanting) perpendicular to the plane of the circle, and conſequently parallel to the earth's axis. When the ſun is in the ſouthern ſigns, the hours are ſhewn by the ſhadow of the pin in the ſouth, and when he is in the northern ſigns by that to the north. On the meridian line on both ſides are marked the co-tangent, to a radius equal to the length of the centre pin. The ſhadow of the pin on this line at noon, points out the ſun's declination.

6. *Semrát-yunter*, alſo called *Náree-wila*, another form of equinoctial dial. (Fig. A of Sir ROBERT BARKER's plate.) It conſiſts of a gnomon of ſtone, containing within it a ſtair. Its length is 43 feet 3.3 inches; height from the ground, at the ſouth end, 3 feet 9.7 inches; at the north end 22 feet, being here broken. On each ſide is built an arc of a circle, parallel to the equator, of 90 degrees. Its radius is 9 feet 1 inch; breadth from north to ſouth 3 feet 1 inch. Theſe arcs are divided into *g,hurries* and ſubdiviſions; and the ſhadow of the gnomon among them points out the hours. From the north and ſouth extremities of the interſection of theſe arcs with the gnomon, are drawn lines upon the gnomon, perpendicular to the line of their interſection. Theſe are conſequently radii of the arcs; and from the points on the upper edge of the gnomon where theſe lines cut it, are conſtructed two lines of tangents, one to the northward, and another to the ſouthward, to a radius equal to that of the arc. To find the ſun's declination, place a pin among theſe diviſions, perpendicular

perpendicular to the edge of the gnomon; and move it backwards and forwards, till its ſhadow falls on the north or ſouth edge of the arc below: the diviſion on which the pin is then placed, will ſhew the ſun's declination. In like manner, to find the declination *(kránti)* of a ſtar, and its diſtance in time from the meridian *(net-ghurry)* place your eye among the diviſions of the arc, and move it till the edge of the gnomon cut the ſtar, while an aſſiſtant holds a pin among the diviſions on the edge of the gnomon, ſo that the pin may ſeem to cover the ſtar. Then the diviſion on the arc at which the eye was placed, will ſhew the diſtance of the ſtar from the meridian; while the place of the pin, in the line of tangents, will ſhew its declination.

At *Matra* the remains of the obſervatory are in the fort, which was built by *Jayaſinha* on the bank of the *Jumna*. The inſtruments are on the roof of one of the apartments. They are all imperfect, and in general of ſmall dimenſions.

1. An Equinoctial Dial, being a circle nine feet two inches in diameter, placed parallel to the plane of the equator, and facing northwards. It is divided into *g,hurries* of ſix degrees each: each of theſe is ſubdivided into degrees, which are numbered as *puls* 10, 20, 30, 40, 50, 60: laſtly, each ſubdiviſion is farther divided into five parts, being 12 minutes, or two *puls*. In the centre is the remains of the iron ſtyle, or pin, which ſerved to caſt the ſhadow.

2. On the top of this inſtrument is a ſhort pillar, on the upper ſurface of which is an amplitude inſtrument (like that deſcribed No. 2, *Oujein* obſervatory, called *Agra-yunter)*; but it is only divided into octants. Its diameter is two feet five inches.

3. On the level of the terrace is another amplitude inſtrument, divided into ſixty equal parts. Its diameter is only thirteen inches.

4. On the ſame terrace is a circle, in the plane of the horizon, with a gnomon ſimilar to that of a horizontal dial, but the diviſions are equal, and of ſix degrees each. It muſt therefore have been intended for ſome other purpoſe than the common horizontal dial, unleſs we may conceive it to have been made by ſome perſon who was ignorant of the true principles of that inſtrument. This could not have been the caſe with *Jayaſinha* and his aſtronomers; but the inſtrument has ſome appearance of being of a later date than moſt of the others; they are all of ſtone or brick, plaiſtered with lime, in which the lines and figures are cut; and the plaiſter of this inſtrument, though on the level of the terrace, and conſe-

quently more expoſed to accidents than the others, is the freſheſt and moſt entire of all.

5. On the eaſt wall, but facing weſtward, is a ſegment, exceeding a ſemicircle, with the arch downwards. It is divided into two parts, and each of theſe into fifteen diviſions. Its diameter is four feet. On the weſt wall, facing eaſtwards, is a ſimilar ſegment, with the arch upwards, divided in the ſame way as the former. Its diameter is ſeven feet nine inches.

The obſervatory at *Benares* having been deſcribed by Sir ROBERT BARKER, and Mr. WILLIAMS, I have only a few remarks to offer, in addition to the account delivered by thoſe gentlemen.

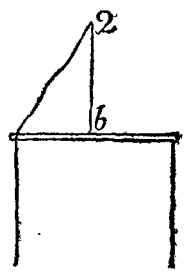
I. A (of Sir *Robert Barker's* plate) is the *Semrat-yunter*, deſcribed *Dehly* obſervatory, No. I. and *Oujein* obſervatory, No. VI. The arcs on each ſide are carried as far as ninety-ſix degrees, which are ſubdivided into tenth parts, Each ſpace of ſix degrees is numbered from the bottom of the arc towards the top, ſixteen in each arc. Each of theſe is equal to twenty-four minutes of our time, which anſwers to the *Hindu* aſtronomical *ghurry*. Beſides the ſtair contained in the gnomon, one aſcends along a limb of each arc. The dimenſions have been given by Mr. *Williams*, with an accuracy that leaves me nothing to add on that head. With reſpect to the reaſon of the name I am ſomewhat in doubt. It may have been given from its eminent utility; but the Rajah had conferred on one of his principal *Pandits* the title of *Semrat* or Prince; and perhaps this inſtrument, as well as the *Semrat-ſiddhanta*, may have been denominated in compliment to him; as another inſtrument (which I have not been able to find out) was called *Jey-pergas* in alluſion to the Rajah's name.

B is the equinoctial dial or *Naree-wila* of No. V. *Oujein* obſervatory. The name given by the *Pandits* to Mr. *Williams (gentu-rage)* probably ought to be *yunter* or *yunter-raj*, q. d. the royal dial.

C is a circle of iron, faced with braſs, placed between two ſtone pillars, about the height of the eyes, and revolving round one of its diameters, which is fixed parallel to the axis of the world. The breadth of the rim of the circle is two inches, the thickneſs of iron is one inch, of braſs three tenths of an inch. The diameter mentioned before is not the ſame breadth and thickneſs with the rim. The limb is divided into 360 degrees, each degree into four equal parts; and there are larger diviſions, containing ſix degrees each. The ſize of a degree is .3

of

of an inch. Round the centre revolves an index of braſs; the end of which is formed as in the margin; and the line A B, which produced, paſſes through the centre of the circle, marks the degrees. From this deſcription, it appears that the circle when placed in a vertical poſition, is in the plane of the meridian of Benares; when it declines from that poſition, it repreſents ſome other meridian. Were there any contrivance for meaſuring the quantity of this deviation, it would anſwer the purpoſe of an equatorial inſtrument, for determining the place of a ſtar, or any other phænomenon in the heavens. For by moving the circle and its index, till the latter points exactly to the object, the degrees of deviation from the vertical poſition would mark the diſtance of the object from the meridian; and the degrees on the circle, interſected between the index and the diameter, which is perpendicular to that on which it revolves, would ſhew its declination. This laſt may indeed be obſerved with the inſtrument in its preſent ſtate; but I am inclined to think, that there has been ſome contrivance for the former part alſo; having been informed by a learned Pandit, that in two rings of this kind in the *Jeyanagar* obſervatory ſuch contrivance actually exiſts. On one of the pillars that ſupport the axis, a circle is deſcribed parallel to the equator, divided into degrees and minutes; to the axis of the moveable circle is fixed an index, which is carried round by the motion of the circle; and thus points out, among the diviſions on the immoveable circle, the diſtance from the meridian of the body to be obſerved.



Obſervations with this inſtrument cannot have admitted of much accuracy, as the index is not furniſhed with ſights; and the pin by which it is fixed to the centre of the circle is ſo prominent, that the eye cannot look along the index itſelf.

The literal meaning of the *Sanſcrit* term *Kranti-writ*, is *circle of declination*, which may, with ſome propriety, have been applied to this inſtrument, as mentioned by Mr. *Williams*: But this name is, in the *Hindu* aſtronomical books, peculiarly appropriated to the ecliptic; and as the *Sem'rat Sid-dhanta* contains the deſcription of an inſtrument called *Kranti-writ-yunter*, wherein a circle is made, by a particular contrivance, to retain a poſition parallel to the ecliptic, I am inclined to believe that the appellation has been erroneouſly given by the ring above deſcribed.

D is the *Dig-anſa-yunter*, No. 4. Oujein obſervatory. The "iron pins," with ſmall holes in them, on the top of the outer wall, at the four cardinal "points,"

are

are undoubtedly as the Pandits informed Mr. *Williams* for ſtretching the wires or threads, the uſe of which is fully explained above.

The quadrant deſcribed by Sir *Robert Barker*, but not repreſented in his plate, is the *Yam-utter-bhitti-yunter*, deſcribed *Oujein* obſervatory, No. 1.

On the ſouth-eaſt corner of the terrace is a ſmall platform raiſed above its level, ſo that you mount upon it by a flight of ſteps. Upon this we find a circle of ſtone, which Mr. *Williams* found to be ſix feet two inches in diameter, in a poſition inclined to the horizon. Mr. *Williams* ſays it fronts the weſt, and that he could not learn the uſe of it.

I dare not, without further examination, oppoſe to this what I find in my notes, taken in 1786, that it ſtands in the plane of the equinoctial. If that is the caſe it has been clearly intended for a dial of the ſame kind as fig. B. and probably, as Mr. *Williams* ſays, never completed, as I found no appearance of graduation on the circle.

Having deſcribed thoſe among the obſervatories conſtructed by *Jayaſinha*, which have fallen under my obſervation, I proceed to give ſome account of the tables intitled *Zeej Mahommedſhahy*. But here I ſhould regret that, not having acceſs to the *Tabulæ Ludovicia* of *La Hire*, I am unable to determine, whether thoſe of *Jayaſinha* are merely taken from the former, by adapting them to the *Arabian* lunar year; or, whether, as he aſſerts, they are corrected by his own obſervations; did not the zeal for promoting enquiries of this nature, manifeſted in the queries propoſed to the Aſiatick Society by Profeſſor PLAYFAIR (to whom I intend to tranſmit a copy of the *Zeej Mahommedſhahy*) convince me, that he will aſcertain, better than I could have done, the point in queſtion.

I. TABLES of the SUN conſiſt of

1. Mean longitudes of the ſun, and of his apogee, for current years of the *Hejira* from 1141 to 1171 incluſive.
2. Mean motions of the ſun, and of his apogee, for the following periods of *Arabian* years, viz. 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 600, 900, 1200.
3. Mean motions of the Sun, and of his apogee, for *Arabian* months.
4. The ſame for days from 1 to 31.
5. The ſame for hours, 24 to a natural day; but theſe are continued to 61; ſo that the numbers anſwering to them, taken for the next lower denomination, anſwer for minutes.
6. The ſame for years complete of the *Hejira*, from 1 to 31.

7. The

7. The equation of time.

8. The ſun's equation, or equation of the orbit. Argument, his *mean anomaly*, corrected by the equation of time. If this is in the northern ſigns, the equation is to be ſubtracted from his place corrected by the equation of time; if in the ſouthern, to be added.

9. The ſun's *diſtance*, his *horary motion*, and *apparent* diameter. Argument, his equated anomaly.

II. TABLES of the MOON.

1—6. Contain the mean longitudes and motions of the *Moon*, of her *apogee* and *node*, for the ſame period, as the correſponding tables of the ſun.

7. The moon's firſt *equation*, or *elliptic equation*. Argument, her mean anomaly corrected by the equation of time, to be applied to her place; corrected by the equation of time, in the ſame manner as the equation of the ſun to his.

8. The moon's *ſecond equation*, is to be applied in three places; viz. to her *longitude* and *apogee*, corrected by the firſt equation and to the node. It has two arguments.

1. From the moon's longitude once equated, ſubtract the ſun's equated place. The ſigns and degrees of this are at the top and bottom of the table.

2. From the moon's place once equated, ſubtract the place of the ſun's apogee. The ſigns and degrees of this are on the right and left of the table.

The equation is found at the interſection of the two arguments. If the ſecond argument is in the firſt half of the zodiac, and the firſt argument in the firſt or fourth quarter, the equation is to be added; in the ſecond or third, to be ſubtracted. But if the ſecond argument is in the ſecond half of the *zodiac*, and the firſt argument in the firſt or fourth quarter, it is ſubtractive; and in the ſecond or third quarter, it is additive.

9. The moon's *third equation*, has alſo two arguments;

1. From the moon's place, corrected by the ſecond equation, ſubtract the ſun's true longitude; the ſigns and degrees of this are at the top and bottom of the table.

2. The moon's mean anomaly, corrected by the ſecond equation; the ſigns and degrees are on the right and left of the table.

The equation is found at the interſection of the arguments; and is to be applied to the moon's longitude twice equated, by addition or ſubtraction, as expreſſed in the table, to give her true place in the *ſelekmayee* or in her *orbit*.

10. Equation of the node.

Argument,

Argument, the moon's longitude thrice equated, diminiſhed by that of the ſun. The equation is to be added to, or ſubtracted from, the place of the node, as expreſſed in the table.

In the ſame table is a ſecond column, entitled *correction of the node*. The numbers from this are to be reſerved and applied farther on.

11. The moon's fourth equation; or reduction from her *orbit*, to the *ecliptic*. From the moon's longitude thrice equated, ſubtract the equated longitude of the node, the remainder is the *argument of latitude*, and this is alſo the argument of the fourth equation; which is to be ſubtracted, if the argument is in the firſt or third quarter, from the moon's place in her *orbit*; and if the argument is in the ſecond or fourth quarter, added to the ſame to give her longitude in the *mumuſſil*, i. e. reduced to the ecliptic.

12. Table of the moon's latitude, contains two columns, *latitude* and *adjuſtment of the latitude*. Both of theſe are to be taken out by the ſigns and degrees of the argument of latitude.

Multiply into one another, the correction of the node and the adjuſtment of the latitude, and add the product to the latitude of the moon, as taken out of the table, to give the latitude correct; which is northern if the argument of latitude be in the firſt half of the zodiac, and *vice verſâ*.

III. TABLES of SATURN.

1—6. Contain the mean longitudes and motions of *Saturn*, of his apogee and node, for the ſame periods as the correſponding tables of the Sun and Moon.

7. Firſt equation. Argument, *Saturn's* mean anomaly; if in the firſt ſix ſigns, ſubtraction, and *vice verſâ*.

8. Equation of the node. Argument, the argument of latitude, found by ſubtracting the longitude of the node, from that of *Saturn* once equated; additive in the firſt and fourth quarters, ſubtractive in the ſecond and third.

9. *Saturn's* ſecond equation, or reduction of his orbit to the ecliptic. Argument, the corrected argument of latitude or difference between *Saturn's* longitude once equated and the equated longitude of the node. This equation to be added to, or ſubtracted from, the planet's longitude once equated, (or his place in his orbit,) in the ſame caſes as indicated in the correſponding table of the moon.

10. Table of *Saturn's* inclination. Argument, the argument of latitude.

11. Table of *Saturn's* diſtance. Argument, his mean anomaly corrected by the ſecond equation.

IV. TABLES

IV. TABLES of JUPITER, correſpond with thoſe of *Saturn*, excepting that there is no equation of the node, ſo that they are only ten in number.

V. VI. VII. Tables of MARS, VENUS, and MERCURY, agree in number, denomination, and uſe, with thoſe of *Jupiter*.

For ſeveral parts of the foregoing information, I am indebted to the grandſon of a *Pandit*, who was a principal co-adjutor of *Jayaſinha* in his aſtronomical labours. The Rajah beſtowed on him the title of *Jyotiſhray*, or *Aſtronomer-royal*, with a *jageer* which produced 5000 rupees of annual rent. Both of theſe deſcended to his poſterity; but from the incurſions and exactions of the *Mahrattas* the rent of the *jageer* land was annihilated. The young man finding his patrimonial inheritance reduced to nothing, and that ſcience was no longer held in eſtimation, undertook a journey to the *Decan*, in hopes that his talents might there meet with better encouragement; at the ſame time, with a view of viſiting a place of religious worſhip on the banks of the *Nerbuddah*. There he fell in with RUNG RAW APPAH, dewan of the powerful family of POWAR, who was on his march to join ALY-BAHADUR in *Bundelcund*. With this chief the *Pandit* returned, and arrived at *Oujein* while I was there. This young man poſſeſſed a thorough acquaintance with the Hindu aſtronomical ſcience contained in the various *Sid,dhantas*, and that not confined to the mechanical practice of rules, but founded on a geometrical knowledge of their demonſtration; yet he had inherited the ſpirit of *Jayaſinha* in ſuch a degree, as to ſee and acknowledge the ſuperiority of European ſcience. In his poſſeſſion I ſaw the tranſlation into *Sanſcrit* of ſeveral European works, executed under the orders of *Jayaſinha*, particularly EUCLID's *Elements* with the treatiſes of plain and *ſpherical trigonometry*, and on the conſtruction and uſe of logarithms, which are annexed to CUNN's or COMMANDINE's edition. In this tranſlation, the inventor is called *Don* JUAN NAPIER, an additional preſumption that *Jayaſinha's* European aſtronomers were of the Portugueſe nation. This, indeed, requires little confirmation, as the ſon of one of them, *Don* PEDRO DE SYLVA, is ſtill alive at *Jayanagar*; and *Pedro* himſelf, who was a phyſician as well as aſtronomer, has not been dead more than five or ſix years. Beſides theſe, the *Pandit* had a table of logarithms, and of logarithmic ſines and tangents to ſeven places of figures; and a treatiſe on conic ſections. I have always thought, that after having convinced the Eaſtern nations of our ſuperiority in policy and in arms, nothing can contribute more to the extenſion of our national glory than the diffuſion among them of a taſte for European ſcience. And as the means of promoting ſo deſirable an end, thoſe among

among the natives who had penetration to ſee, and ingenuouſly to own, its ſuperior accuracy and evidence, ought to be cheriſhed. Among thoſe of the Iſlamic faith, TUFFUZZUL HUSSEIN KHAN, who, by tranſlating the works of the immortal NEWTON, has conducted thoſe imbued with Arabick literature to the fountain of all phyſical and aſtronomical knowledge, is above my praiſe. I hoped that the *Pandit Jyotiſh Ray*, following the ſteps of his anceſtors and of his illuſtrious maſter, might one day render a ſimilar ſervice to the diſciples of *Brahma*. But this expectation was diſappointed by his ſudden death at *Jayanagar* ſoon after our departure from *Oujein:* and with him the genius of *Jayaſinha* became extinct. URANIA fled before the brazen-fronted *Mars*, and the obſervatory was converted into an arſenal and foundery of cannon.

The Hindu aſtronomy, from the learned and ingenious diſquiſitions of Mr. BAILY and Profeſſor PLAYFAIR, appears to carry internal marks of antiquity which do not ſtand in need of confirmation by collateral evidence. Elſe, it is evident, from the foregoing account, that ſuch could not be derived from the obſervatories which have been deſcribed by travellers; thoſe being of modern date, and as probably of European as of Hindu conſtruction. The aſſiſtance derived by *Jayaſinha* from European books alſo inclines me to think, that the treatiſe entitled *Cſhetraderſa*, which was inſpected by *Captain* WILFORD'S *Pandit*, (Aſiat. Reſ. vol. IV.) was not confined to geometrical knowledge, of purely *Brahminical origin*.

XVI.

DESCRIPTION OF A SPECIES OF MELOE, AN INSECT OF THE FIRST OR COLEOPTEROUS ORDER IN THE LINNEAN SYSTEM: FOUND IN ALL PARTS OF BENGAL, BEHAR, AND OUDE; AND POSSESSING ALL THE PROPERTIES OF THE SPANISH BLISTERING FLY, OR MELOE VESICATORIUS.

By Captain HARDWICKE.

Communicated by Mr. W. HUNTER.

ANTENNÆ MONILIFORM, ſhort, conſiſting of eleven articulations, increaſing in ſize from the ſecond to the apex; the firſt nearly as long as the laſt; each a little

little thicker upwards, than at the baſe, and truncated, or as if cut off, the laſt excepted, which is egg-form.

Palpi—four, inequaled, clubbed, the poſterior pair of three, and the anterior, of two articulations.

Maxillæ or jaws—four, the exterior horney, ſlightly curved inwards, three toothed—the two inferior teeth very ſmall; the exterior pair, compreſſed and bruſh-like.

Head, gibbous; eyes prominent, large, reticulated; labium or upper lip, hard, emarginated.

Thorax—convex above, broader towards the abdomen, and encompaſſed by a narrow marginal line.

Elytra, cruſtaceous, the length of the abdomen, except in flies pregnant with eggs, when they are ſhorter by one ring; convex above, concave beneath; yellow, with three tranſverſe, black, irregular, undulated bands; the one at the apex broadeſt, and that at the baſe dividing the yellow longitudinally, into two ſpots: porcated or ridged; the ridges longitudinal and parallel to the future; in number, three equal, one unequal, the ridges not very prominent.

Alæ or wings—membraneous, a little exceeding the elytra in length, and the ends folded under.

The tarſi of the two firſt pair of feet conſiſts of five articulations; and of the poſterior pair, four only.

Every part of the inſect, excepting the wings and elytra, is black, oily to the touch, and covered more or leſs with denſe hairs; a few ſcattered hairs are alſo evident on the lytra. All the cruſtaceous parts of the inſect are pitted minutely. It is about the bigneſs of the *Meloë Proſcarabæus* of LINN. and a full grown one, when dry and fit for uſe, is to the *M. Veſicatorius* in weight as $4\frac{1}{2}$ to 1.

They come into ſeaſon with the periodical rains, and are found from the month of *July* to the end of *October*, feeding on the flowers of *cucurbitaceous* plants, but more frequently on the ſpecies of *Cucumis* called by the natives *Turiey*; with a cylindrical, ſmooth, ten angled fruit. Alſo on the *Raam Turiey*; or *Hibiſcus Eſculentus Hibiſcus, Roſa Senſis*—and in jungles where theſe plants are not to be found, they are to be met with on two or more ſpecies of *Sida*, which flouriſh in that ſeaſon.

In the failure of flowers, they will feed on the leaves of all theſe plants, ex-

cept the *Turiey*—which I have not obſerved them eat. They are great devourers, and will feed as freely in confinement as at large.

In September they are full of eggs, which ſeems to be the beſt ſtate in which they can be taken for medical uſe, at that time abounding more abundantly in an acrid yellow oil, in which, probably, reſides their moſt active property.

This fluid ſeems the animal's means of rendering itſelf obnoxious to others; for, on the moment of applying the hand to ſeize it, it ejects a large globula from the knee joint of every leg, and this, if ſuffered to dry on the fingers, ſoon produces an uncommon tingling in the part, and ſometimes a bliſter. This is the only inconvenience attending the catching of them, for they make no reſiſtance: on the contrary, they draw in the head towards the breaſt as ſoon as touched, and endeavour to throw themſelves off the plant they are found on.

The female produces about 150 eggs, a little ſmaller than a caraway ſeed, white and oblong oval. Their larvæ I have not ſeen, therefore as yet know not where they depoſit their eggs.

Their flight from plant to plant is ſlow, heavy, and with a loud humming noiſe, the body hanging almoſt perpendicularly to the wings.

They vary in the colour of the elytra, from an orange red to a bright yellow; but I do not find this variety conſtitutes any difference in ſex.

The natives of this part of the country know the inſect by the name of *tel-eene*, expreſſive of its oily nature: they are acquainted with its bliſtering properties, but I do not find they make any medicinal uſe of it.

The drawing which accompanies this deſcription, exhibits the fly of its natural ſize.

Futte-Ghur, September, 1796.

REPORT ON THE MELOE, OR LYTTA.

By W. Hunter, *Eſq.*

The circumſtance reſpecting your new ſpecies of Meloe or *Lytta*, which I lately had occaſion to obſerve, was ſhortly as follows:

Tincture of them was directed as an external application to a man's arm, which was paralytic in conſequence of rheumatiſm. On the firſt application ſeveral veſications

veſications were raiſed, as completely diſtended with ſerum, as if a bliſter had been applied. I am not particularly informed, what proportion the flies bore to the menſtruum; but, I think, it was ſomething greater than that directed by the *London* college for the tincture of the officinal kind.

March 9th, 1796.

REPORT ON THE EFFECT PRODUCED BY A SPECIES OF MELOE, FOUND IN BENGAL, BEHAR, AND OUDE.

By W. R. MONROE, *Eſq.*

I RECEIVED your packet containing the ſpecimens of the new bliſtering fly, a few days ago, whilſt I was buſily employed in preparations for my departure from this ſtation. I loſt no time, however, in making a trial of their efficacy on three different patients who required bliſtering. They ſucceeded in each trial; though the effect was in none produced completely in leſs than ten hours; and the veſications even then were filled with a ſerum rather gelatinous than fluid.

As far as theſe few trials authoriſe a concluſion, we may ſafely conſider them a valuable ſubſtitute for the cantharides; though I ſhould think they will not, in general, be found ſo active as the *Spaniſh* fly, in its moſt perfect ſtate of preſervation. Captain HARDWICKE has certainly, however, made a moſt uſeful addition to our *Aſiatick Materia Medica*; and, he may rely on it, that if I ſhould inadvertently mention the diſcovery, I ſhall not fail to give him alſo the merit he is ſo fairly entitled to for it. The country people, I find, give the fly different names, ſo that there are, I ſuppoſe, many ſpecies of it, the moſt efficacious of which he will, in his account of it, particularize.

REFERENCES.

A. A full grown inſect of its natural ſize.

B. The ſame reverſed, to ſhow the under part of the body and limbs.

C. The eggs.

D. An elytron of another fly, to ſhow the difference of colour and ſpots at the baſe.

E. A.

E. A wing diſplayed.
F. The head magnified.
G. The labium or lip.
H. The horny or exterior jaws.
I. The hairy interior ditto.
K. The poſterior pair or palpi.
L. The anterior or leſſer ditto.

XVII.

A COMPARATIVE VOCABULARY OF SOME OF THE LANGUAGES SPOKEN IN THE BURMA EMPIRE.

By FRANCIS BUCHANAN, *M. D.*

TO judge from external appearance, that is to ſay, from ſhape, ſize, and feature, there is one very extenſive nation that inhabits the eaſt of *Aſia*. It includes the eaſtern and weſtern *Tartars* of the *Chineſe* authors, the *Calmucs*, the *Chineſe*, the *Japponeſe*, the *Malays*, and other tribes inhabiting what is called the Peninſula of *India* beyond the *Ganges*; and the iſlands to the ſouth and eaſt of this, as far at leaſt as *New Guinea*. This, however, is ſpeaking in a very general ſenſe, many foreign races being intermixed with the nation, and perhaps many tribes belonging to it being ſcattered beyond the limits I have mentioned.

This nation may be diſtinguiſhed by a ſhort, ſquat, robuſt, fleſhy ſtature, and by features highly different from thoſe of an *European*. The face is ſomewhat in ſhape of a lozenge, the forehead and chin being ſharpened, whilſt at the cheek bones it is very broad: unleſs this be what is meant by the conical head of the *Chineſe*, I confeſs myſelf at a loſs to underſtand what that is. The eyebrows, or ſupercillary ridges, in this nation, project very little, and the eyes are very narrow, and placed rather obliquely in the head, the external angles being the higheſt. The noſe is very ſmall, but has not, like that of the negro, the appearance of having been flattened; and the apertures of the noſtrils, which in the *European* are linear and parallel, in them are nearly circular and divergent; for the *ſeptum marium* being much thickeſt towards the face, places them entirely out of the parallel

rallel line. The mouths of this nation are in general well ſhaped; their hair is harſh, lank, and black. Thoſe of them that live even in the warmeſt climates, do not obtain the deep hue of the negro or *Hindu*; nor do ſuch of them as live in the coldeſt countries, acquire the clear bloom of the *European*.

In adventitious circumſtances, ſuch as laws, cuſtoms, government, political maxims, religion, and literature, there is alſo a ſtrong reſemblance among the different ſtates compoſing this great nation; no doubt ariſing from the frequent intercourſe that has been among them.

But it is very ſurpriſing, that a wonderful difference of language ſhould prevail. Language of all adventitious circumſtances, is the ſureſt guide in tracing the migrations and connections of nations; and how in a nation, which bears ſuch ſtrong marks of being one, radically the ſame, languages totally different ſhould prevail, I cannot, at preſent, pretend to conjecture: but, in order to aſſiſt, in accounting for the circumſtance, having, during my ſtay in the *Burma* empire, been at ſome pains to collect a comparative vocabulary of ſuch of the languages ſpoken in it as opportunity offered, I have thought it might be curious to publiſh it. I am ſenſible of its many imperfections: but it is a beginning, which I hope hereafter to make more complete; and, where I fail, others, without doubt, will be more ſucceſsful.

In all attempts to trace the migrations and connections of tribes by means of language, it ought to be carefully remembered, that a few coincidences, obtained by ſearching through the whole extent of two dictionaries, is by no means the leaſt affinity; for our organs being only capable of pronouncing a certain, and that a very limited number of ſounds, it is to be expected, according to the common courſe of chance, that two nations, in a few inſtances, will apply the ſame ſound to expreſs the ſame idea. It ought alſo to be obſerved, that in tracing the radical affinities of languages, terms of art, men's names, religious and law phraſes, are, of all words, the moſt improper; as they are liable conſtantly to be communicated by adventitious circumſtances from one race of men to another. What connection of blood have we, *Europeans*, with the *Jews*, from whom a very great proportion of our names and religious terms are derived? Or what connection have the natives of *Bengal* with the *Arabs* or *Engliſh*, from whom they have derived moſt of their law and political terms? With the former they have not even had political connection; as the phraſes in queſtion were derived to them through the medium of the *Perſians* and *Tartars*. Two languages, therefore, ought only to be conſidered

conſidered as radically the ſame, when, of a certain number of common words choſen by accident, the greater number have a clear and diſtinct reſemblance. A circumſtance, to which, if antiquarians had been attentive, they would have been ſaved from the greater part of that etymological folly, which has ſo often expoſed their pleaſing ſcience to the juſt ridicule of mankind.

In the orthography I have had much difficulty. Two people will ſeldom write in the ſame way, any word or language with which they are unacquainted. I have attempted merely to convey to the *Engliſh* reader, without any minute attention to accent, or ſmall variations of vowels, a ſound ſimilar to that pronounced; nor have I paid any attention to the orthography of the natives. This, in the *Burma* language, I might have done; but as I am not acquainted with the writing of the other tribes, I thought it the ſafeſt method to expreſs the ſound merely. The following ſcheme of vowels, in order to read my vocabulary correctly, muſt be kept in mind:

A—pronounce as in the *Engliſh* words bad, bat, had, hat.

Aw—or broad *Scotch* a, as in bawd.

Ay—as the *Engliſh* a, in babe, bake, bare; day, pay, hay.

Ee—in order to avoid confuſion, I uſe for the *Engliſh* e; as they have exactly the ſame ſound.

Æ—I uſe for the *French* and *Scotch* é open.

U—I always ſound as in the word duck; uſing oo for its other ſound, as in book.

Ou—I ſound as in found, bound.

Au—is nearly ſimilar, but broader, a ſound ſcarcely to be met with in the *Engliſh* language.

Ei—I uſe as the vowel in bind, find, &c.

Ai—nearly the ſame but broader.
Oe—I uſe to expreſs the *French* u.
} Theſe two ſounds, as far as I remember, are not uſed by the *Engliſh*.

It is to be obſerved, that the pronunciation, among all theſe tribes, to a ſtranger appears exceedingly inarticulate. In particular they hardly ever pronounce the letter R; and T, D, TH, S, and Z, are almoſt uſed indiſcriminately. The ſame may be ſaid of P and B. Thus the word for water which the *Burmas* univerſally pronounce *yoe*, is written *rae*; and the *Palli* name for their capital city *Amarapoora*, is commonly pronounced *Amaapooya*. This indiſtinct pronunciation probably ariſes from the exceſſive quantity of betel, which they chew. No man of rank ever

ſpeaks

ſpeaks without his mouth being as full as poſſible of a mixture of betel and nut, tobacco, quicklime, and ſpices. In this ſtate he is nearly deprived of the uſe of his tongue in articulation, which, although not the only organ of ſpeech, is yet of ſuch uſe in articulation, as to be commonly conſidered as ſuch. Hence it is, that an indiſtinct articulation has become faſhionable, even when the tongue is at liberty.

I ſhall begin with the *Burma* language as being at preſent the moſt prevalent. There are four dialects of it, that of the *Burma* proper, that of *Arakan*, that of the *Yo*, and that of *Tenaſerim*.

The people called by us *Burmas*, *Barmas*, *Vermas*, *Brimmas*, &c. ſtile themſelves *Myammaw*. By the people of *Pegu*, they are named *Pummay*; by the *Karaya*, *Yoo*; by the people of *Cuſſay*, *Awaw*; by the *Cuſſay ſhau*, *Kammau*; by the *Chineſe* of *Youñan*, *Laumeen*; and by the *Aykobat*, *Anwa*. They eſteem themſelves to be deſcended from the people of *Arakan*, whom they often call *Myammaw gyee*, that is to ſay, great *Burmas*.

The proper natives of *Arakan*, call themſelves *Yakain*, which name is alſo commonly given to them by the *Burmas*. By the people of *Pegu* they are named *Takain*. By the *Bengal Hindus*, at leaſt by ſuch of them as have been ſettled in *Arakan*, the country is called *Roſſawn*, from whence, I ſuppoſe, Mr. RENNELL has been induced to make a country named *Roſhawn* occupy part of his map, not conceiving that it would be *Arakan*, or the kingdom of the *Mugs*, as we often call it. Whence this name of *Mug*, given by *Europeans* to the natives of *Arakan*, has been derived, I know not; but, as far as I could learn, it is totally unknown to the natives and their neighbours, except ſuch of them as by their intercourſe with us have learned its uſe. The *Mahommedans* ſettled at *Arakan*, call the country *Rovingaw*, the *Perſians* call it *Rekan*. The third dialect of the *Burma* language is ſpoken by a ſmall tribe called *Yo*. There are four governments of this nation, ſituated on the eaſt ſide of the *Arakan* mountains, governed by chiefs of their own, but tributary to the *Burmas*.

The fourth dialect is that of what we call the coaſt of *Tenaſſerim*, from its city now in ruins, whoſe proper name was *Tanayntharee*. Theſe people, commonly called by the *Burmas*, *Dawayza* and *Byeitza*; from the two governments of which their country conſiſts, have moſt frequently been ſubjected to *Siam* or *Pegu*; but at preſent they are ſubjects of the *Burma* king.

Although the dialects of theſe people, to one another, appear very diſtinct, yet the

the difference conſiſts chiefly in ſuch minute variations of accent as not to be obſervable by a ſtranger. In the ſame manner as an *Engliſhman* at firſt is ſeldom able to diſtinguiſh even the *Aberdeen* accent from that of the other ſhires of Scotland, which to a Scotchman appears ſo different; ſo, in moſt caſes, I could perceive no difference in the words of theſe four languages, although among the *Burmas*, any of the provincials, ſpeaking generally, produced laughter, and often appeared to be with difficulty underſtood. I ſhall, therefore, only give a liſt of the *Burma* words; thoſe of the other dialects are the ſame, where difference is not mentioned.

I. *Engliſh.*	*Myammaw.*	*Yakain.*	*Tanayntharee.*	*Yo.*
1 Sun	Nay	—	—	—
2 Moon	La	—	—	—
3 Star	Kyee	Kyay	—	Kay
4 Earth	Myacgyee	—	—	—
5 Water	Yæ	Ree	—	Rae
6 Fire	Mee	—	—	—
7 Stone	Kiouk	—	—	Kioukay
8 Wind	Læ	Lee	—	—
9 Rain	Mo	—	—	—
10 Man	Loo	—	—	—
11 Woman	Meemma	—	—	—
12 Child	Loogalay	*Looſhee	—	—
13 Head	Kaung	—	—	—
14 Mouth	Parat	—	—	—
15 Arm	Læmmaung	—	—	—
16 Hand	Læk	—	—	Laik
17 Leg	Kæthalour	—	—	Saloongſa
18 Foot	Kiæbamo	—	—	—
19 Beaſt	Taraitram	—	—	—
20 Bird	Hugæk	—	—	Knap
21 Fiſh	Ngaw	—	—	—
22 Good	Kaung	—	—	—
23 Bad	Makaung	—	—	—
24 Great	Kyee	—	—	—

* Literally, a little man.

25 Little

Engliſh.	*Myammaw.*	*Yakain.*	*Tanayntharee.*	*Yo.*
25 Little	Ngay	—	—	—
26 Long	Shay	—	—	Shæ
27 Short	Ato	—	—	To
28 One	Teet	—	—	—
29 Two	Hueet	—	—	—
30 Three	Thoum	—	—	—
31 Four	Lay	—	—	—
32 Five	Ngaw	—	—	—
33 Six	Kiouk	—	—	—
34 Seven	Kuhneet	—	—	—
35 Eight	Sheet	—	—	—
36 Nine	Ko	—	—	—
37 Ten	Tazay	—	—	—
38 Eat	Zaw	—	—	—
39 Drink	Thouk	—	—	—
40 Sleep	Eit	—	—	—
41 Walk	Xleen	Hlay	—	Hlay
42 Sit	Tein	—	—	—
43 Stand	Ta	Mateinay	—	Mateenahay
44 Kill	That	Sot	—	Aſatu
45 Yes	Houkkay	—	—	—
46 No	Mahouppoo	—	—	—
47 Here	Deemaw	—	—	Thaman
48 There	Homaw	—	—	—
49 Above	Apomaw	—	—	Apobau
50 Below	Houkmaw	—	—	Auk

The next moſt prevalent language in *India* beyond the *Ganges*, is what we call the *Siammeſe*, a word probably corrupted from the *Shan* of the *Burmas*. The *Siammeſe* race occupies the whole frontier of *Yunan*, extending on the eaſt to *Tonquin* and *Cochinchina*, and on the ſouth, down to the ſea. It contains many ſtates or kingdoms, moſtly ſubject or tributary to the *Burmas*. I have only procured vocables of three of its dialects, which I here give compleat, as they differ conſiderably.

The firſt dialect is that of the kingdom of *Siam*, the moſt poliſhed people of eaſtern *India*. They call themſelves to me ſimply *Tai*; but Mr. LOUBERE ſays, that

that in order to diſtinguiſh themſelves from a people to be afterwards mentioned, they add the word *Nay*, which ſignifies little. By the *Burmas*, from the vulgar name of their former capital city, they are called *Yoodaya*; by the people of *Pegu* they are named *Seem*; and by the *Chineſe* of *Yunan*, *Syianlo* or *Kyænlo*.

The ſecond dialect of the *Siammeſe* language which I ſhall mention, is that of a people, who, to me, alſo call themſelves ſimply *Tai*. I believe, however, they are the *Tai-yay*, or great *Tai*, of Mr. LOUBERE. They have been long ſubject to the *Burmas*, who call them *Myelapſhan*; by the people of *Pegu* they are named *Sawn*; *Thay* by the *Karayn*; *Looktai* by the *Katheeſhan*; *Kabo* by the people of *Kathee* or *Cuſſay*; *Pawyee* by the *Chineſe*; and to me they were named *Lau* by the *Siammeſe* proper. Their country towards the north lies between the weſt ſide of *Yunan* and the *Erawade* or great *Burma* river, deſcending down its eaſtern bank a conſiderable way; it then extends along the ſouth ſide of *Yunan* till it comes to the *Loukiang* or river of *Martaban*, which forms its eaſtern boundary; on the ſouth it extends to no great diſtance from *Martaban*; and on the weſt it is ſeparated from *Burma* proper by a chain of mountains, that paſs about fifteen miles to the eaſt of *Ava*.

The third dialect of the *Siammeſe* language is that of a people called, by the *Burmas*, *Kathee Shawn*; to themſelves they aſſume the name of *Tai-loong* or great *Tai*. They are called *Moitay Kabo*, by the *Kathee* or people of *Cuſſay*. They inhabit the upper part of the *Kiaynduayn* river, and from that weſt to the *Erawade*. They have, in general, been ſubject to the king of *Munnypura*; but, at preſent, are tributary to the *Burma* monarch.

II. *Engliſh.*	*Tainay.*	*Taiyay.*	*Tai-loong.*
1 Sun	Rocn	Kawan	Kangoon
2 Moon	Sun	Loen	Noon
3 Stars	Dau	Lau	Nau
4 Earth	Deen	—	Neen
5 Water	Nam	Nawh or Naum	Nam
6 Fire	Fai	Fai	Pui
7 Stone	Hin	—	Heen
8 Wind	Lam	Loum	Loom
9 Rain	Fon	Foon	Poon
10 Man	Kon	Kon	Koon
11 Woman	Pooen	Paeyen	Pawneen
12 Child	Daeknooe	Lawen	Lookwoon

13 Head

English.	*Tainay.*	*Taiyay.*	*Tai-loong.*
13 Head	Seeza	Ho	Hoo
14 Mouth	Pawk	Tſop	Pawk
15 Arm	Kayn	Komooee	Moo
16 Hand	Moo	Mooee	Pawmoo
17 Leg	Naung	Koteen	Hooko
18 Foot	Langteen	Swateen	Lungdin
19 Beaſt	Sawt	—	Nook
20 Bird	Noup	Naut	Nook
21 Fiſh	Plaw	Paw	Paw
22 Good	Dee	Lee	Wanoo
23 Bad	Maidee	Malee	Mowan
24 Great	To	Loung	Loong
25 Little	Layt	Laik	Unleek
26 Long	Yan	Yan	Anyou
27 Short	San	Lot	Unlot
28 One	Noong	Noo	Aning
29 Two	So	Sang	Sowng
30 Three	Sam	Sam	Sam
31 Four	See	Shee	Shee
32 Five	Haw	Haw	Haw
33 Six	Hok	Houk	Hook
34 Seven	Kyæt	Sayt	Seet
35 Eight	Payt	Payt	Pæt
36 Nine	Kawo	Kaw	Kau
37 Ten	Seet	Sheet	Ship
38 Eat	*Kyeen Kau	Kyeen Kau	Kyeen Kau
39 Drink	Kyeen Nam	Kyeen Nawm	Kyeen Nam
40 Sleep	Non	Non	Non
41 Walk	Teeo	Hoe	Pei
42 Sit	Nanon	Nawn	Nung
43 Stand	Yoon	Lootſook	Peignung
44 Kill	Kaw	Po	Potai

* Kau is rice, and Nam is water. Here, therefore, we have a nation with no word to expreſs the difference between eating and drinking. The pleaſures of the table muſt be in little requeſt with them.

Engliſh.	*Tainay.*	*Taiyay.*	*Tai-loong.*
45 Yes	O	Sai	Munna
46 No	Maiſhai	Moſai	Motſau
47 Here	Teenee	Teenai	Teenay
48 There	Teenon	Teepoon	Ponaw
49 Above	Bonon	Teenaipoon	Nooa
50 Below	Kang lang	Teetai	—

The next language, of which I ſhall give a ſpecimen, is that of the people who call themſelves *Moitay*. Their country is ſituated between *Sylhet* in *Bengal* and that of the *Tai-loong* above mentioned: to the north of it is *Aſſam*; on the ſouth *Arakan*, and the rude tribes bordering on that kingdom. Their capital city they name *Munnypura*. By the people of *Bengal* they are called *Muggaloos*, an appellation with which thoſe we ſaw at *Amarapura* were totally unacquainted. This name, however, *Europeans* have applied to the country, turning it at the ſame time into *Meckley*. *Kathee* is the name given to this people by the *Burmas*, which we alſo have taken for the name of the country, and corrupted into *Cuſſay*. Mr. RENNEL having from *Bengal* obtained information of *Meckley*, and from *Ava* having heard of *Cuſſay*, never conceived that they were the ſame, and, accordingly, in his map of *Hinduſtan*, has laid down two kingdoms, *Cuſſay* and *Meckley*; for which, indeed, he had ſufficient room, as by Captain BAKER's account he had been induced to place *Ava* much too far to the eaſt.

III. *Engliſh.*	*Moitay.*	*Engliſh.*	*Moitay.*
1 Sun	Noomeet	14 Mouth	Seembaw
2 Moon	Taw	15 Arm	Pambom
3 Stars	Towang Meezat	16 Hand	Khoit
4 Earth	Leipauk	17 Leg	—
5 Water	Eeſheen	18 Foot with the ankle	Kho
6 Fire	Mee		
7 Stone	Noong Loong	19 Beaſt	—
8 Wind	Nooſheet	20 Bird	Ooſaik
9 Rain	No	21 Fiſh	Ngaw
10 Man	Mee	22 Good	Pawee or Pai
11 Woman	Noopee	23 Bad	Pattay
12 Child	Peeka	24 Great	Sauwee
13 Head	Kop Kok	25 Little	Apeekauk

26 Long

	Moitay.		*Engliſh.*	*Moitay.*
26 Long	Aſamba	39 Drink		Tawee
27 Short	Ataymba	40 Sleep		Keepee
28 One	Amaw	41 Walk		Kwnee
29 Two	Anee	42 Sir		Pummee
30 Three	Ahoom	43 Stand		Lapee
31 Four	Maree	44 Kill		Hallo
32 Five	Mangaw	45 Yes		Manee
33 Six	Torok	46 No		Nattay
34 Seven	Tarayt	47 Here		Maſhee
35 Eight	Neepaw	48 There		Ada
36 Nine	Mapil	49 Above		Mataka
37 Ten	Tarraw	50 Below		Maka
38 Eat	Sat			

In the intermediate ſpace between *Bengal*, *Arakan*, the proper *Burma*, and the kingdom of *Munnaypura*, is a large mountainous and woody tract. It is occupied by many rude tribes. Among theſe, the moſt diſtinguiſhed, is that by the *Burmas* called *Kiayn*, from whom is derived the name of the great weſtern branch of the *Erawade*, for *Kiaynduayn* ſignifies the fountain of the *Kiayn*. This people calls itſelf *Koloun*, and it ſeems to be a numerous race, univerſally ſpoken of by its neighbours, as remarkable for ſimple honeſty, induſtry, and an inoffenſive diſpoſition.

IV. *Engliſh.*	*Koloun.*	*Engliſh.*	*Koloun.*
1 Sun	Konee	14 Mouth	Mawkoo
2 Moon	Klow	15 Arm	Maboam
3 Stars	Aſſay	16 Hand	Mukoo
4 Earth	Day	17 Leg	Manwam
5 Water	Tooee	18 Foot	Kopaung
6 Fire	May	19 Beaſt	Pakyoo
7 Stone	Aloong	20 Bird	Pakyoo
8 Wind	Klee	21 Fiſh	Ngoo
9 Rain	Yoo	22 Good	Poælahoe
10 Man	Kloun	23 Bad	Sælahoe
11 Woman	Patoo	24 Great	Ahlayn
12 Child	Saemee	25 Little	Amee
13 Head	Mulloo	26 Long	Aſaw

Engliſh.	*Koloun.*	*Engliſh.*	*Koloun.*
27 Short	Sooæhay	39 Drink	Koyawee
28 One	Moo	40 Sleep	Eitſha
29 Two	Palmee	41 Walk	Hlayæſhoe
30 Three	Patoon	42 Sit	Own
31 Four	Poonhee	43 Stand	Undoon
32 Five	Poonho	44 Kill	Say,oe
33 Six	Pooſouk	45 Yes	Aſhæba
34 Seven	Pooæſæ	46 No	Seehay
35 Eight	Pooæſay	47 Here	Næa
36 Nine	Poongo	48 There	Tſooa
37 Ten	Poohaw	49 Above	Akloengung
38 Eat	Kayawæ	50 Below	Akoa

Another rude nation, which ſhelters itſelf in the receſſes of hills and woods, from the violence of its inſolent neighbours, is named by the *Burmas Karayn*; and *Kadoon* by the people of *Pegu*. They are moſt numerous in the *Pegu* kingdom, and like the *Kiayn* are diſtinguiſhed for their innocence and induſtry. By the *Burmas* they are ſaid to be of two kinds; *Burma* and *Talain Karayn*. Some of them, with whom I converſed, ſeemed to underſtand this diſtinction, calling the former *Paſſooko* and the latter *Maploo*. This, however, probably aroſe from theſe individuals being better acquainted with the *Burma* ideas, than the generality of their countrymen; for the greater part of thoſe with whom I converſed ſaid that all *Karayn* were the ſame, and called them *Play*. I am, however, not certain if I underſtood them rightly; nor do I know, that I have obtained the proper name of this tribe. I have given a vocabulary of each of theſe, who ſeemed to underſtand the diſtinction of *Burma* and *Tailain Karayn*, and two of different villages who did not underſtand the difference; for in this nation I found the villages differing very much in dialect; even where not diſtant, probably owing to their having little communication one with another. It muſt be obſerved, that in uſing an interpreter, one is very liable to miſtakes, and thoſe I had were often very ignorant.

V. *Engliſh.*	*Paſſooko.*	*Maploo.*	*Play, No.* 1.	*Play, No.* 2.
1 Sun	Moomay	Moo	Mooi	Moomay
2 Moon	Law	Law	Law	Poolaw
3 Stars	TSaw	Sheeaw	Shaw	[illegible]

4 Earth

	English.	*Paſſooko.*	*Maploo.*	*Play, No.* 1.	*Play, No.* 2.
4	Earth	Katchaykoo	Kolangkoo	Kako	Laukoo
5	Water	Tee	Tee	Tee	Tee
6	Fire	Mee	Meeung	Meea	Mee
7	Stone	Loe	Loong, Noong Lung	——	Loung
8	Wind	Kallee	Lee	Lee	Lee
9	Rain	Tachoo	Tchatchang	Moko	Moko
10	Man	Paganyo	Paſhaw	Paſha	Paploom or Paſha
11	Woman	Pomoo	Pomoo	Pummee	Pammoe
12	Child	Pozaho	Poſſaw	Napootha	Apoza
13	Head	Kozohui	Kohui	Kohui	Pokoohui
14	Mouth	Patako	Pano	Ganoo	Pano
15	Arm	Tchoobawlee	Tchoobawlee	Atſyoodoo	Tchoobawlee
16	Hand	Patchoo	Poitchoo	Kutſhoo	Tchooaſee
17	Leg	Kadoe	Pokaw	Kandoo	Kandoo
18	Foot	Konyawko	Kanyakoo	Kanyako	Kanyaſaw
19	Beaſt	T'hoo	Too	——	——
20	Bird	T'hoo	Too	Kalo	To
21	Fiſh	Nyaw	Zyaw	Ya	Ya
22	Good	Ngeetchawmaw	Ngee	Gyee	Gyee
23	Bad	Taw ngee baw	Nguay	Gyeeay	Gyeeay
24	Great	Pawdoo	Hhoo	Uddo	Doo
25	Little	Tchecka	Tchei	Atſei	Atſee
26	Long	To atcho maw	T'ho	Loeya	Ato
27	Short	P'hecko	P'hoe	Apoe	Apoe
28	One	Taydoe	Nadoe	Laydoe	Laydoe
29	Two	Kee-doe	Nee-doe	Nee-doe	Nee-doe
30	Three	So-doe	Song-doe	Soung-doe	Soung-doe
31	Four	Looee-doe	Lee-du	Lee-doe	Lee-doe
32	Five	Yay-doe	Yay-doe	Yay-doe	Yay-doe
33	Six	Hoo-doe	Hoo-doe	Koo-doe	Koo-doe
34	Seven	Nooee-doe	Noay-doe	Noæ-doe	Noæ-du
35	Eight	Ho-doe	Ho-doe	Ko-doe	Ko-doe
36	Nine	Kooee-doe	Kooee-doe	Kooee-doe	Kooee-doe

37 Ten

Engliſh.	*Paſſooko.*	*Maploo.*	*Play, No.* 1.	*Play, No.* 2.
37 Ten	Tatchee	Leitchee.	Taſſee	Laytſee
38 Eat	Po, o	Aw	Ang	Ang
39 Drink	Oo	O	O	O
40 Sleep	Prammee	Mee	Mee	Mee
41 Walk	Latcholia	Leetalay	Rakuæ	Lakuæ
42 Sit	Tcheenaw	Tſeingaw	Tyſana	Tſayna
43 Stand	Tchocto	Tchopto	Tſayna lagay	Gnaythoe
44 Kill	Klo	P'hee	Pætegui	Paythee
45 Yes	Maylee	Moayyoo	Moiyoo	Moithay
46 No	Tamay baw	Moæ	Moi	Moi
47 Here	Loee	Layee	Leyoo	Layee
48 There	Lubanee	Loo	Læyo	Læyo
49 Above	Mokoo	Mokoo	Læpanko	Læpanko
50 Below	Hokoo	Lankoo	Læpaula	Læpaula

To this kingdom, the natives of which call themſelves *Moan* we have given the name of *Pegu*, a corruption of the vulgar appellation of its capital city *Bagoo*; the polite name of the city among its natives having been *Dam Hanga*, as among the *Burmas Hanzawade*. This people are named *Talain* by the *Burmas* and *Chineſe* of *Yunan*; *Lawoo* by the *Karayn*; and *Tarain* by the *Tai-loong*: their kingdom extends along the mouths of the two great rivers *Erawade* and *Thauluayn*, or of *Ava* and *Martaban*, from the frontiers of *Arakan* to thoſe of *Siam*.

VI. *Engliſh.*	*Moan.*	*Engliſh.*	*Moan.*
1 Sun	Knooay Tangooay	13 Head	Kadap
2 Moon	Katoo	14 Mouth	Paun
3 Stars	Shawnaw	15 Arm	Toay
4 Earth	Toe	16 Hand	Kanna Toay
5 Water	Nawt	17 Leg	Kadot-prawt
6 Fire	Komot	18 Foot	Kanat zein
7 Stone	———	19 Beaſt	———
8 Wind	Kyeaw	20 Bird	Seen ngat
9 Rain	Proay	21 Fiſh	Kaw
10 Man	Puee	22 Good	Kah
11 Woman	Preau	23 Bad	Hookah
12 Child	Koon	24 Great	Mor

25 Little

	Engliſh.	*Moan.*		*Engliſh.*	*Moan.*
25	Little	Bok	38	Eat.	Tſapoung. Poung, I believe, is rice.
26	Long	Kloein			
27	Short	Klee	39	Drink	Saungnawt. Nawt is water
28	One	Mooi	40	Sleep	Steik
29	Two	Bau	41	Walk	Au
30	Three	Pooi	42	Sit	Katcho
31	Four	Pou	43	Stand	Katau
32	Five	Soon	44	Kill	Taw
33	Six	Teraw	45	Yes	Taukua
34	Seven	Kapo	46	No	Auto
35	Eight	Tatſam	47	Here	Noomano
36	Nine	Kaſſee	48	There	Taoko
37	Ten	Tſo	49	Above	Tatoo commooee
			50	Below	Tauamo

Theſe ſix are all the languages of this great *eaſtern* nation, of which, during my ſtay in the *Burma* empire, I was able to procure vocables ſufficient for my purpoſe. Although they appear very different at firſt ſight, and the language of one race is totally unintelligible to the others; yet I can perceive in them all ſome coincidences, and a knowledge of the languages, with their obſolete words, their phraſes, their inflections of words, and eliſions, *euphoniæ cauſa*, would, perhaps, ſhew many more. Thoſe that have the greateſt affinity are in Tab. I. IV. and V. Mr. GILCHRIST, whoſe knowledge of the common dialects in uſe on the banks of the *Ganges* is, I believe, exceeded by that of no *European*, was ſo obliging as to look over theſe vocabularies, but he could not trace the ſmalleſt relation between the languages.

I ſhall now add three dialects, ſpoken in the *Burma* empire, but evidently derived from the language of the *Hindu* nation.

The firſt is that ſpoken by the *Mohammedans*, who have been long ſettled in *Arakan*, and who call themſelves *Rooinga*, or natives of *Arakan*.

The ſecond dialect is that ſpoken by the *Hindus* of *Arakan*. I procured it from a *Brâhmen* and his attendants, who had been brought to *Amarapura* by the king's eldeſt ſon, on his return from the conqueſt of *Arakan*. They called themſelves *Roſſawn*, and, for what reaſon I do not know, wanted to perſuade me that

theirs was the common language of *Arakan*. Both theſe tribes, by the real natives of *Arakan*, are called *Kulaw Yakain*, or ſtranger *Arakan*.

The laſt dialect of the *Hinduſtanee* which I ſhall mention is, that of a people called by the *Burmas Aykobat*, many of whom are ſlaves at *Amarapura*. By one of them I was informed, that they called themſelves *Banga*; that formerly they had kings of their own, but that, in his father's time, their kingdom had been overturned by the king of *Munnypura*, who carried away a great part of the inhabitants to his reſidence. When that was taken laſt by the *Burmas*, which was about fifteen years ago, this man was one of the many captives who were brought to *Ava*. He ſaid alſo, that *Banga* was ſeven days' journey ſouth-weſt from *Munnypura*; it muſt, therefore, be on the frontiers of *Bengal*, and may, perhaps, be the country called in our maps *Caſhar*.

Mr. *Gilchriſt* has been ſo good as to examine particularly theſe two dialects, and to mark thus (*) thoſe words which come neareſt the *Hinduſtanee* ſpoken on the *Ganges*; and thus (†) thoſe not ſo evidently in connection with the ſame, but which ſhew reſemblance by analogy.

Engliſh.	*Rooinga.*	*Roſſawn.*	*Banga.*
1 Sun	Bel	*Sooja	Bayllee
2 Moon	Sawn	Sundſa	Satkan
3 Stars	Tara	*Nokyoto	*Tara
4 Earth	Kool	Murtika	*Matee
5 Water	Pannæ	*Dſol	*Pannæ
6 Fire	Auin	*Aaganee	Zee
7 Stone	Sheel	*Sheel	*Heel
8 Wind	Bau	*Pawun	*Bo
9 Rain	Jorail	†Biſtee	*Booun
10 Man	Manuſh	†Moonuſa	*Manoo
11 Woman	Meealaw	Stree	Zaylan
12 Child	Gourapa	*Balouk	Sogwo
13 Head	Mata	Muſtok	Teekgo
14 Mouth	Gall	Bodon	Totohan
15 Arm	Bahara	*Baho	Paepoung
16 Hand	Hat	Oſto	Hatkan
17 Leg	Ban	†Podo	Torooa
18 Foot	Pau	Pata	Zankan

19 Beaſt

Engliſh.	*Rooinga.*	*Roſſawn.*	*Banga.*
19 Beaſt	——	Zoomtroo	Safee ſangee
20 Bird	Paik	†Pookyee	†Pakya
21 Fiſh	Maws	Mootſæ	†Mas
22 Good	Goom	Gam	Hoba
23 Bad	Goom nay	Gumnay	Hoba nay
24 Great	Boddau	Dangor	Domorgo
25 Little	Thuddee	*Tſooto	Hooroogo
26 Long	Botdean	Deengol	Deengul
27 Short	Banick	*Batee	*Batee
28 One	Awg	*Aik	*Ak
29 Two	Doo	*Doo	De
30 Three	Teen	*Teen	*Teen
31 Four	Tchair	*Tſar	*Saree
32 Fiye	Panſoee	*Paus	*Pas
33 Six	Saw	*Tſo	*Tſæ
34 Seven	Sat	*Sat	*Hat
35 Eight	Awtoa	†Aſto	*Awt
36 Nine	Nonaw	*No	*No
37 Ten	Duſſoa	*Dos	*Dos
38 Eat	Kau	*Kawai	†Kæk
39 Drink	Karin	Kawo	†Peek
40 Sleep	Layrow	†Needſara	Hooleek
41 Walk	Pawkay	Bayra	†O-teea-ootea
42 Sit	Boihow	†Boeſho	†Bo
43 Stand	Tcheilayto	*Karao	†Oot
44 Kill	Marim	*Maro	*Mar
45 Yes	Hoi	Oir	Oo
46 No	Etibar	*Noay	*Naway
47 Here	Hayray	Etay	Erang
48 There	Horay	Horay	Orung
49 Above	Ouchalo	*Ooper	Gos
50 Below	Ayray	Hayray	†Tol

XVIII.

ON THE CHRONOLOGY OF THE HINDUS.

By Captain FRANCIS WILFORD.

THE accompanying genealogical table is faithfully extracted from the VISHNU *purâna*, the BHA'GAVAT, and other *purânas*, without the leaſt alteration whatever. I have collected numerous MSS. and with the aſſiſtance of ſome learned *Pundits* of *Benares*, who are fully ſatisfied of the authenticity of this table, I exhibit it as the only genuine chronological *record* of Indian hiſtory that has hitherto come to my knowledge. It gives the utmoſt extent of the chronology of the *Hindus*; and as a certain number of years only can be allowed to a generation, it overthrows at once their monſtrous ſyſtem, which I have rejected as abſolutely repugnant to the courſe of nature, and human reaſon.

Indeed their ſyſtems of geography, chronology, and hiſtory, are all equally monſtrous and abſurd. The circumference of the earth is ſaid to be 500,000,000 *yojanas*, or 2,456,000,000 Britiſh miles: the mountains are aſſerted to be 100 *yojanas*, or 491 Britiſh miles high. Hence the mountains to the ſouth of *Benares* are ſaid, in the *purânas*, to have kept the holy city in total darkneſs, till *Matra-deva* growing angry at their inſolence, they humbled themſelves to the ground, and their higheſt peak now is not more than 500 feet high. In *Europe* ſimilar notions once prevailed; for we are told that the *Cimmerians* were kept in continual darkneſs by the interpoſition of immenſely high mountains. In the CA'LICA *purâna*, it is ſaid that the mountains have ſunk conſiderably, ſo that the higheſt is not above one *yojana*, or five miles high.

When the *Puranics* ſpeak of the kings of ancient times, they are equally extravagant. According to them, king YUDHISHT'HIR reigned ſeven and twenty thouſand years; king NANDA, of whom I ſhall ſpeak more fully hereafter, is ſaid to have poſſeſſed in his treaſury above 1,584,000,000 pounds ſterling, in gold coin alone: the value of the ſilver and copper coin, and jewels, exceeded all calculation; and his army conſiſted of 100,000,000 men. Theſe accounts geographical, chronological, and hiſtorical, as abſurd and inconſiſtent with reaſon, muſt be rejected. This monſtrous ſyſtem ſeems to derive its origin from the ancient period

of

of 12,000 natural years which was admitted by the *Perſians*, the *Etruſcans*, and, I believe, alſo by the *Celtic* tribes; for we read of a learned nation in *Spain*, which boaſted of having written hiſtories of above ſix thouſand years.

The *Hindus* ſtill make uſe of a period of 12,000 divine years, after which a periodical renovation of the world takes place. It is difficult to fix the time when the *Hindus*, forſaking the paths of hiſtorical truth, launched into the mazes of extravagance and fable. MEGASTHENES, who had repeatedly viſited the court of CHANDRA GUPTA, and of courſe had an opportunity of converſing with the beſt informed perſons in *India*, is ſilent as to this monſtrous ſyſtem of the *Hindus*: on the contrary, it appears, from what he ſays, that in his time they did not carry back their antiquities much beyond ſix thouſand, or even five thouſand years, as we read in ſome MSS. He adds alſo, according to CLEMENS of *Alexandria*, that the *Hindus* and the *Jews* were the only people who had a true idea of the creation of the world, and the beginning of things. There was then an obvious affinity between the chronological ſyſtems of the *Jews* and the *Hindus*. We are well acquainted with the pretenſions of the *Egyptians* and *Chaldeans* to antiquity. This they never attempted to conceal. It is natural to ſuppoſe, that the *Hindus* were equally vain: they are ſo now; and there is hardly a *Hindu* who is not perſuaded of, and who will not reaſon upon, the ſuppoſed antiquity of his nation. MEGASTHENES who was acquainted with the antiquities of the *Egyptians*, *Chaldeans*, and *Jews*, whilſt in *India*, made enquiries into the hiſtory of the *Hindus*, and their antiquity: and it is natural to ſuppoſe that they would boaſt of it as well as the *Egyptians* or *Chaldeans*, and as much then as they do now. Surely they did not invent fables to conceal them from the multitude, for whom on the contrary theſe fables were framed.

At all events, long before the ninth century the chronological ſyſtem of the *Hindus* was as complete, or rather, perfectly the ſame as it is now; for ALBUMAZAR, who was contemporary with the famous ALMAMUN, had lived at his court at *Balac* or *Balkh*, had made the *Hindu* antiquities his particular ſtudy. He was alſo a famous aſtronomer and aſtrologer, and had made enquiries reſpecting the conjunctions of the planets, the time of the creation of the world, and its duration, for aſtrological purpoſes; and he ſays, that the *Hindus* reckoned from the Flood to the *Hejira* 720,634,442,715 days, or 3725 years *. Here is a miſtake, which

* See *Bailly's* Aſtron. Anc. p. 30. and Mr. *Davis's* Eſſay in the ſecond volume of the Aſiatick Reſearches.

probably

probably originates with the tranſcriber or tranſlator, but it may be eaſily rectified. The firſt number, though ſomewhat corrupted, is obviouſly meant for the number of days from the creation to the *Hejira*; and the 3725 years are reckoned from the beginning of the *Cali-yug* to the *Hejira*. It was then the opinion of ALBUMAZAR about the middle of the ninth century, that the æra of the *Cali-yug* coincided with that of the Flood. He had, perhaps, data which no longer exiſt, as well as ABUL-FAZIL in the time of AKBAR. Indeed, I am ſometimes tempted to believe, from ſome particular paſſages in the *Puránas*, which are related in the true hiſtorical ſtyle, that the *Hindus* have deſtroyed, or at leaſt deſignedly conſigned to oblivion, all genuine records, as militating againſt their favourite ſyſtem. In this manner the *Romans* deſtroyed the books of NUMA, and conſigned to oblivion the hiſtorical books of the ETRURIANS, and I ſuſpect alſo thoſe of the TURDETANI in *Spain*.

The *Puráns* are certainly a modern compilation from valuable materials, which I am afraid no longer exiſt: an aſtronomical obſervation of the heliacal riſing of *Canopus*, mentioned in two of the *Puránas*, puts this beyond doubt. It is declared there, that certain religious rites are to be performed on the 27th of *Bhádra*, when *Canopus*, diſengaged from the rays of the ſun, becomes viſible. It riſes now on the 18th of the ſame month. The 18th and 27th of *Bhádra* anſwer this year to the 29th of Auguſt and 7th of September. I had not leiſure enough to conſult the two *Puránas* above mentioned on this ſubject. But as violent diſputes have obtained among the learned Pandits, ſome inſiſting that theſe religious rites ought to be performed on the 27th of *Bhádra*, as directed in the *Puránas*, whilſt others inſiſt, it ſhould be at the time of the *udáya*, or appearance of *Canopus*; a great deal of paper has been waſted on this ſubject, and from what has been written upon it, I have extracted the above obſervations. As I am not much uſed to aſtronomical calculations, I leave to others better qualified than I am to aſcertain from theſe data the time in which the *Puránas* were written.

We learn from MANETHO that the *Egyptian* chronology enumerated fourteen *dynaſties*, the particulars of which he omitted as unworthy of notice. In the ſame manner the *Hindu* chronology preſents us with a ſeries of fourteen Dynaſties, equally repugnant to nature and reaſon; ſix of theſe are elapſed, we are in the ſeventh, which began with the Flood, and ſeven more we are taught to expect. Theſe fourteen Dynaſties are hardly ever noticed by the *Hindus* in their legendary tales, or hiſtorical poems. The rulers of theſe Dynaſties are called MENUS: and

from

from them their reſpective Dynaſty, *antara*, or period, is called a *Manwantara*. Every Dynaſty ends with a total deſtruction of the human race, except the *Menu* or ruler of the next period, who makes his eſcape in a boat, with the ſeven *Riſhis*. The ſame events take place; the ſame perſons, though ſometimes under different names, re-appear.

Thus the hiſtory of one Dynaſty ſerves for all the reſt. In reality hiſtory, according to the *Hindus* themſelves, begins with the Flood, or the ſeventh *Menu*. Each period conſiſts of 12,000 years, which the *Hindus* call *divine*. The *Perſians* are not unacquainted with theſe renovations of the world, and periods of 12,000 years; for the bird *Simurgh* is introduced, telling CAHERMAN that ſhe had lived to ſee the earth ſeven times filled with creatures, and ſeven times a perfect void, (it ſhould be ſix times a perfect void, for we are in the ſeventh period,) and that ſhe had already ſeen twelve great periods of 7000 years. This is obviouſly wrong; it ſhould be ſeven great periods of 12,000 years.

The antediluvian hiſtory, being conſidered by the *Hindus* in different points of view, is related in various ways, having little connection with each other. We are told firſt that BRA'HMA created *ten* BRA'MADICAS or children of BRA'HMA, who were to be the progenitors of the *moveable* and *immoveable* parts of the creation, by which they underſtand *animals* and *vegetables*. Their names are MANICHI, ATRI, ANGIRAS, PULASTYA, PULAHA, CRITU, DACSHA, VASISHTHA, BHRIGU, and NARADA. Theſe ſprang immediately from BRA'HMA, and produced the Gods, the *Daityas*, good and bad genii, animals, and plants of all ſorts. The *Purânics* are not agreed as to the number of *Bramâdicas*. In the *Bhâgavat* it is declared that they were *ten*; but in other *purânas* they reckon nine; whilſt in the *Scanda-purâna* it is declared that there were only ſeven *Brahmâdicas*, whoſe names are MARICHI, ATRI, ANGIRA'SA, PULASTYA, PULA'HA, CRITA, and VOSISHTA; nor are there wanting authorities to reduce them to three, namely, the three ſons of SWAYAMBHUVA, who was BRA'HMA himſelf in a human ſhape.

It is declared, that the ſeven MENUS, who have made their appearance, ſprang from the *Brahmâdicas*: their names are, SWAYAMBHUVA, SWA'ROCHISHA, UTTAMA, TA'MASA, RAIVATA, CHA'CSHUSHA, and SATYAVRATA or NOAH.

The ſeven RISHIS ſprang immediately from BRA'HMA, and their names are, CASYAPA, ATRI, VOSISHTA, VISVAME'TRA, GAUTAMA, JAMADAGNI, and BHARADWAJA. Theſe holy penitents, by their ſalutary counſels, and the example of their auſterities, diſcover the path of rectitude and virtue to mankind. It is remarked

marked of *Atri*, that he was both a *Brahmádica* and a *Rĭſhi*; and, perhaps, the ſeven *Menus*, the ſeven *Brahmádicas*, with the ſeven *Rĭſhis*, are the ſame, and make only ſeven individual perſons. The ſeven *Brahmádicas* were *prajápatis* or lords of the *prajas* or creatures. From them mankind were born, and they are probably the ſame with the ſeven *Menus*, who, when far advanced in years, withdrew from the world, and becames *Rĭſhis* or holy penitents, as, according to the *Puránas*, was the general practice of mankind in former ages. Theſe ſeven grand anceſtors of the human race were firſt *Brahmádiças* or children of *Bráhma*, and created for the purpoſe of repleniſhing the earth with inhabitants; having fulfilled their miſſion they became ſovereigns of the univerſe, or *Menus*; and in their old age they withdrew to ſolitary places to prepare for death and become *Rĭſhis*. *Swayambhuva*, or the ſon of the ſelf-exiſting, was the firſt *Menu*, and the father of mankind: his conſort's name was *Satarupa*. In the ſecond *Veda*, the Supreme Being is introduced thus ſpeaking: "From me *Bráhma* was born: he is above all; he is *pitama*, or the father of all men; he is *Aja* and *Swayambhu*, or ſelf-exiſting." From him proceeded *Swayambhuva*, who is the firſt *Menu*: they call him *Adima* (or the firſt, or *Protogonus*:) he is the firſt of men, and *Paramapuruſha*, or the firſt male. His help-meet *Pricriti* is called alſo *Satarupa*: ſhe is *Adima* * or the firſt: ſhe is *Viſva-jenni*, or the mother of the world: ſhe is *Iva* or like *I*, the female energy of nature, or ſhe is a form of, or deſcended from *I*: ſhe is *Para* or the greateſt: both are like, *Maha-deva* and his *Sacti* (the female energy of nature), whoſe names are alſo *Iſa* and *Iſi*.

Swayambhuva is *Bráhma* in a human ſhape, or the firſt *Bráhma*: for *Bráhma* is man individually, and alſo collectively, mankind; hence *Bráhma* is ſaid to be born and to die every day, as there are men ſpringing to life, and dying every day. Collectively he dies every hundred years, this being the utmoſt limits of life in the *Cali-yug*, according to the *Puránas*: at the end of the world, *Bráhma* or mankind is ſaid to die alſo, at the end of a hundred divine years. *Swayambhuva*, in the preſent *calpa*, is *Viſhnu* in the character of *Bráhma-rupi Javardana*, or the *Viſhnu* with the countenance of *Bráhma*. To underſtand this it is neceſſary to premiſe, that it has been revealed to the *Hindus*, that, from the beginning to the end of things, when the whole creation will be annihilated and abſorbed into the Supreme Being, there will be five great *calpas*, or periods. We are now in the middle of the fourth

* *Adima* is the feminine gender from *Adima* or *Adimas*.

calpa,

calpa, fifty years of *Bráhma* being elapſed; and of the remainder the firſt *calpa* is begun. Theſe five great *calpas* include 500 years of *Bráhma*, at the end of which nothing will remain but the ſelf-exiſting. Every *calpa*, except the firſt, is preceded by a renovation of the world, and a general flood: whilſt the flood that precedes every *Manwantara* is in great meaſure, a partial one, ſome few high peaks and ſome privileged places, as *Benares*, being excepted; the peaks remaining above the waters, and *Benares* and other privileged places being ſurrounded by the waters as with a circular wall.

Theſe five *calpas* have five deities, who rule by turns, and from whom the *calpas* are denominated. Theſe five deities are, *Dévi*, *Surya* or the Sun, *Ganeſa*, *Viſhnu*, and *Iſwara*. *Bráhma* has no peculiar *calpa:* he is intimate to every one of them. Every deity, in his own period, is *Calſva-rupi* or *Chronus*. We are now under the reign of the fourth *Chronus*. The Weſtern mythologiſts mention ſeveral ruling deities of that name. *Calſva-rupi* ſignifies he who has the countenance of *Cála*, *Chronus*, or *Time*. This is now the *calpa* of *Viſhnu*, who, to create, thought on *Bráhma*, and became *Bráhma-rupi-Janardana*. He preſerves and foſters the whole creation in his own character; and will ultimately deſtroy it through *Iſwara* or *Rudra*. The *calpa* of *Viſhnu* is called alſo the *Pudma* or *Lotos period*. It is declared in the *puránas* that all animals and plants are the *Ling* or *Phallus* of the *Calſva-rupi* deity; and that at the end of his own *calpa* he is deprived of his *Ling* by his ſucceſſor, who attracts the whole creation to himſelf, to ſwallow it up or devour it, according to the Weſtern mythologiſts; and at the end of his *calpa* he diſgorges the whole creation. Such is the origin of *Chronus* devouring his own offſpring; of *Jupiter* diſgorging it through a potion adminiſtered to him by *Metis*; and of *Chronus* caſtrating his own father. According to this, *Swayambhuva* is conjointly and individually, *Bráhma*, *Viſhnu*, and *Iſá* or *Maha-deva*. To *Swayambhuva* were born three daughters, *Acuti*, *Deva-ſruti*, and *Viſruti* or *Praſuti*. *Bráhma* created three great *Rajapátis*, to be their huſbands; *Cardama*, *Dacſha*, (the ſame who was alſo a *Bráhmadica*,) and *Ruchi*. *Cardama* is acknowledged to be a form of *Siva*, or *Siva* himſelf: and *Dacſha* to be *Bráhma*; hence he is often called *Dacſha Bráhma*; and we may reaſonably conclude that the benevolent *Ruchi* was equally a form of *Viſhnu*. It is ſaid in the *védas*, as I am aſſured by learned *pundits*, that theſe three gods ſprang in a mortal ſhape from the body of *Adima*; that *Dacſha Bráhma* iſſued myſtically from his navel, *Viſhnu* from his left, and *Siva* from his right ſide. It is declared in the *puránas*, that *Iſwara* cut off one of the heads of *Bráhma*, who being

immortal was only maimed. The ſame myſtical rancour was manifeſt when they aſſumed a mortal ſhape, as appears from the following relation: The pious *Dacſha* deſiring to perform ſacrifice, invited gods and men to aſſiſt at it; but did not aſk *Siva* on account of his bad conduct and licentious life. The wife of *Siva*, who was the daughter of *Dacſha*, could not brook this neglect, and determined to go: her huſband expoſtulated with her, but to no purpoſe. When ſhe arrived, her father took no notice of her, which enraged her ſo much, that after having ſpoiled the ſacrifice, ſhe jumped into the ſacred fire, and expired in the flames. *Siva* hearing of her misfortune, went to *Dacſha*; and, reproaching him for his unnatural conduct towards his own daughter, cut off his head. *Dacſha* had no male offspring, but many daughters, whoſe alliance was eagerly ſought for by the moſt diſtinguiſhed characters. It is aſſerted in the *purânas* that from *Cardama*, *Dacſha*, and *Ruchi*, the earth was filled with inhabitants: yet in the ſame *purânas* we are told, that *Bráhma*, being diſappointed, found it neceſſary to give two ſons to *Adima*, from whom, at laſt, the earth was filled with inhabitants. Theſe two ſons were PRIYAVRATA and UTTA'NAPA'DA, who appear to be the ſame with CARDAMA and RUCHI. Here the antediluvian hiſtory aſſumes a different ſhape; and the *purânics*, abandoning their idle tales of the ſeven *Menus* and renovations of the world, between the time of SWAYAMBHUVA and the flood of SATYAVRATA, preſents us with ſomething more conſiſtent with reaſon and hiſtorical truth; but which at once overthrows their extravagant fabrick. PRIYAVRATA was the firſt born of ADIMA; and the particulars recorded of his progeny have no ſmall affinity with the generations exhibited by SANCHONIATHO, as will appear from the following comparative Table:

I. ADIMA, and ADIMA or I'VA.	I. PROTOGONUS, ſynonimous with ADIM: AION OF AEON from I'VA or I'VAM, in the ſecond caſe.
II. PRIYAVRATA. He married BARHISMATI, the daughter of VISVACARMA, the chief engineer of the Gods.	II. GENUS, GENEA.
III. AGNIDHRA and his ſeven brothers, whoſe names ſignify fire and flame. By one wife he had three ſons; they became *Menus*; and were named, UT-	III. PHOS, PHUR, PHLOX; that is, light, fire, and flame.

TAMA,

TAMA, TAMASA, and RAIVATA. By another wife, AGNIDHRA had nine ſons, who gave their names to the mountainous tracts of *Nabhi*.	
IV. CIMPURUSHA, HARIVARSHA, ILA'ARTA, RA'MA'NACA, CURU, BHADRASVA, CE'TUMA'LA, and HIRANMAYA.	IV. They begat ſons of vaſt bulk, whoſe names were given to the mountains on which they ſeized, viz. *Caſſius*, *Libanus*, *Anti-Libanus*, *Brathys*.
V. RĬSHABAHA, ſon of NABAHI.	V. MEMRUMUS, HYPSURANIUS, and USOUS.
VI. BHARATA, who gave his name to the country of *Bharata-varſha*.	VI. AGREÆS, HALIÆUS.
VII. SUMARTI, DHUMRA-CE'TU, whoſe name ſignifies a fiery meteor.	VII. CHRYSAOR.
VIII. DEVAJITA 9. PRATIHARA 10. PRATIHATA (ſaid by ſome to be brothers. The names of the two laſt imply beating, hammering, &c.)	VIII. TECHNITES, GEINUS, AUTOCHTON.
IX. AJA and BHUMA'NA. Then follows a liſt of ſixteen names, ſuppoſed by ſome to be ſo many generations in a direct line; by others, this is denied: but as nothing is recorded of them, they are omitted.	IX. AGROWERUS, or AGROTES. AJA in *Sanſcrit*, is ſynonimous nearly with *Autochton*, and BHU'MANA anſwers to *Agrowerus* and *Agrotes*.

The poſterity of ADIMA or ADIM (for the letter A in this name has exactly the ſound of the *French e* in the word *j'aime*) through UTTA'NAPA'DA, is as follows:

I. ADIM and I'VA. I'VA ſounds exactly like EVE, pronounced as a diſſyllable E-VE.

II. UTTA'NAPA'DA. He had two wives, SURUCHI and SURUTI: by the firſt he had UTTAMA, and by the ſecond DHRUVA. *Uttánapáda* was exceedingly fond of *Suruchi*, which gave riſe to the following circumſtances. Whilſt he was careſſing *Uttama* his ſon *Dhruva* went to him and was repulſed. *Dhruva* burſt into tears, and complained to his mother, who adviſed him to withdraw into the deſerts. He followed her advice, and retired into a foreſt on the banks of the *Jumna*, where he gave himſelf up to the contemplation of the Supreme Being, and the performance of religious auſterities. After many years the Supreme Being appeared to him, and commanded him to put an end to his auſterities and return

to

to his father, who had relented. He went accordingly to his father, who received him with joy, and reſigned the kingdom to him. *Dhruva*, like *Enoch* in Scripture, is commended for his extraordinary piety, and the ſalutary precepts he gave to mankind. He did not taſte death, but was tranſlated to heaven, where he ſhines in the polar ſtar. Here *Enoch* and *Enos* are confounded together. *Uttama*, whoſe education had been neglected, gave himſelf up to pleaſure and diſſipation. Whilſt hunting he happened to quarrel with the *Cuveras*, and was killed in the fray. *Dhruva*, at the head of a numerous army, took the field to revenge the death of his brother: many had fallen on both ſides, when *Swayambhuva* or *Adim* interpoſed, and a laſting peace was concluded between the contending parties.

III. DHRUVA. He had by his firſt wife two ſons, VATSARA and CALMAVATSARA; by ILA he had a ſon called UTCALA, and a daughter.

IV. VATSARA, by his wife SWACATAI had ſix ſons, the eldeſt of whom was called PUSHPA'RNA.

V. PUSHPA'RNA had by his wife DOSHA three ſons, and by NAD'WALA, CHACSHUSHA, who became a *Menu*.

VI. CHACHUSHA had twelve ſons, the eldeſt of whom was called ULMACA.

VII. ULMACA had ſix ſons, the eldeſt of whom was ANGA.

VIII. ANGA had an only ſon called VENA.

IX. VENA, being an impious and tyrannical prince, was curſed by the BRA'HMENS; in conſequence of which curſe he died without leaving iſſue. To remedy this evil they opened his left arm, and with a ſtick churned the humours till they at laſt produced a ſon, who proved as wicked as his father, and was of courſe ſet aſide: then opening the right arm, they churned till they produced a beautiful boy, who proved to be a form of VISHNU under the name of PRĬTHU.

X. PRĬTHU. Gods and men came to make obedience to him, and celebrate his appearance on earth. He married a form of the goddeſs LACSHMI. In his time, the earth having refuſed to give her wonted ſupplies to mankind, PRĬTHU began to beat and wound her. The earth aſſuming the ſhape of a cow, went to the high grounds of *Meru*, and there laid her complaint before the ſupreme court, who rejected it; as ſhe acknowledged, that ſhe had refuſed the common neceſſaries of life, not only to mankind in general, but to PRĬTHU himſelf, whoſe wife ſhe was in a human ſhape. PRĬTHU and his deſcendants were allowed to beat and wound her in caſe of noncompliance with the decree of the

ſupreme

ſupreme court. The earth ſubmitted reluctantly, and ſince that time mankind are continually beating and wounding her, with ploughs, harrows, hoes, and other inſtruments of huſbandry. We are told alſo, in more plain language, that PRĬTHU cut down whole foreſts, levelled the earth, planted orchards, and ſowed fields with all ſorts of uſeful ſeeds. From her huſband PRĬTHU, the earth was denominated PRĬTHWĬ.

PRĬTHU was a religious prince, fond of agriculture, and became a huſbandman; which is to be underſtood by his quarrel with the earth. This induces me to think, that he is the ſame with SATYAVRATA, or NOAH, whoſe mortal father is not mentioned in the *puránas*, at leaſt my *Pundits* have not been able to find it. His heavenly father was the Sun; and SATYAVRATA is declared alſo to be an incarnation of VISHNU. Here I muſt obſerve, that at night, and in the weſt, the Sun is VISHNU: he is BRA'HMA in the eaſt, and in the morning; from noon to evening he is SIVA.

XI. PRĬTHU had five children. VIJITASVA, who became ſovereign over his four brothers, and had the middle part of the kingdom to his own ſhare; HURYACSHA ruled over *Prachi*, or the eaſt, and built the town of *Rájgriha*, now *Rájmehal*; DHUMRACE'SHA, who ruled in the ſouth, as VRICA did in the weſt, and DRAVINA'SA in the north.

XII. VI'SITASWA had by one of his wives three ſons, called PAVACA, PAVAMANA, and SUCHI, all names of fire. He became *Antardhana* at pleaſure, that is to ſay, he appeared and diſappeared whenever he choſe; and he withdrew his ſoul from his body at pleaſure. He was born again of his own wife, and of himſelf, under the name of HAVIRDHANA. HAVIRDHANA married HAVIRDHANI, by whom he had ſix children, known by the general appellation of *Prachinabarhi*.

XIII. VARISHADA, the eldeſt of them, married SATADRUTI the daughter of OCÆANUS, and had by her two ſons called the *Prachetas*.

XIV. The famous DACSHA before mentioned, was born again one of them. His brothers, bidding adieu to the world, withdrew to foreſts in diſtant countries towards the weſt, where they beheld the tranſlation of DHRUVA into heaven. And here ends the line of UTTA'NAPA'DA, which I now exhibit at one view, with ſome variations.

I. SWAYAMBHUVA or ADIM.

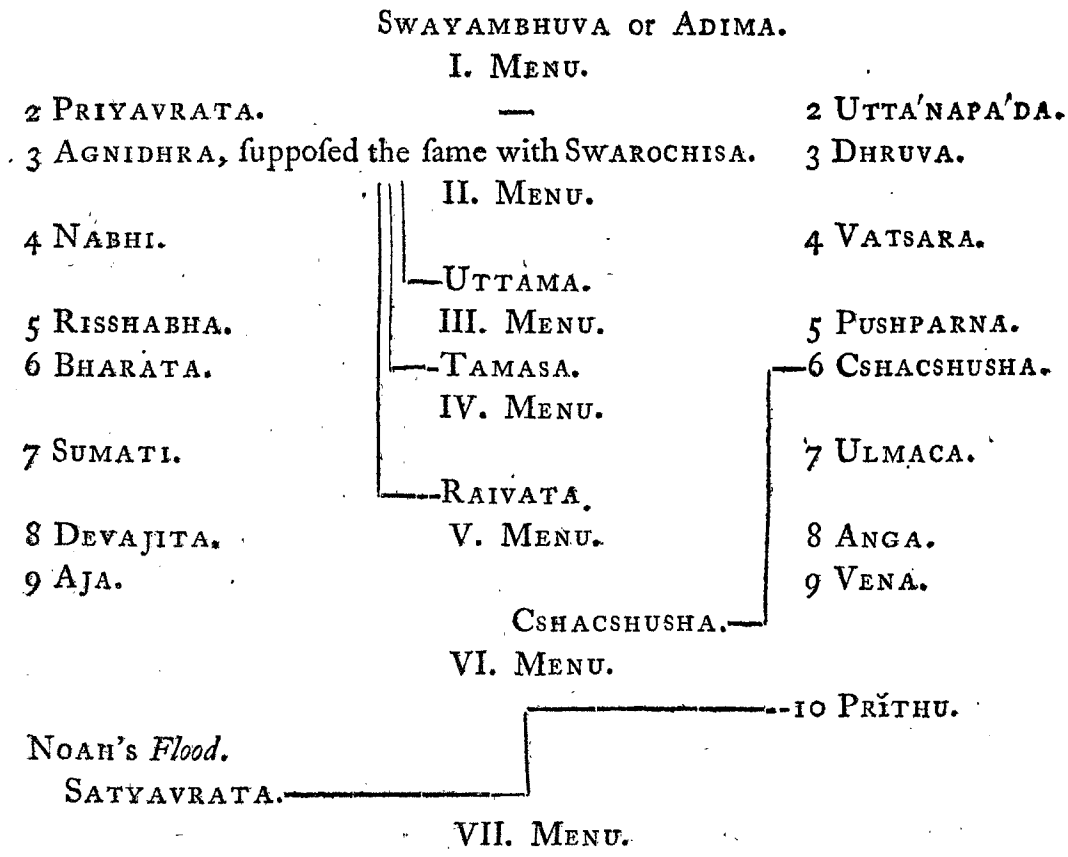
II. UTTA'NAPA'DA, who was probably the ſame with RUCHI.

III. DHRUVA,

III. DHRUVA, eminent for his piety.
IV. VATSARA.
V. PUSHPARNA, called alſo RIPUNJAYA.
VI. CHACSHUSHA, MENU.
VII. ULMACA or URU.
VIII. ANGA.
IX. VENU.
X. PRĬTHU, ſuppoſed to be NOAH.
XI. VIGITASVA.
XII. HAVIRDHANA. SWAYAMBHUVA dies.
XIII. VARISHADA.
XIV. The ten PRA'CHETA'S. DHRUVA is tranſlated into heaven.

By ſuppoſing *Prĭthu* to be *Noah*, and *Dhruva* to be *Enos*, this account agrees remarkably well with the computation of the *Samaritan Pentateuch*. *Enos* lived 433 years after the birth of *Noah*, and, of courſe, the great-grand-children of the latter could be witneſſes of the tranſlation of *Dhruva* into heaven. *Swayambhuva* or *Adam* lived 223 years after the birth of *Noah*, according to the computation of the *Samaritan Pentateuch*; and it is ſaid of *Prĭthu*, that the earth having aſſumed the ſhape of a cow, he made uſe of this grand anceſtor *Swayambhuva* as a calf to *milk her*. Perhaps the old ſire took delight in ſuperintending the fields and orchards, and attending the dairies of his beloved *Prĭthu*.

The only material difficulty in ſuppoſing *Prĭthu* to be the ſame with *Noah*, reſpects his offſpring to the fourth generation before the flood. But, when we conſider that *Noah* was 500 years old when *Japheth* and his two ſons were born, it is hardly credible that he ſhould have had no children till that advanced age. The *purânics* inſiſt, that *Satyavrata* had many before the Flood, but that they periſhed with the reſt of mankind, and that SHARMA or SHAMA, CHARMA, and JYA'PATI, were born after the Flood: but they appear to have no other proof of this, than that they are not mentioned among thoſe who eſcaped with *Noah* in the ark. I ſhall now give a table of the *ſeven Menus* compared with the two lines deſcended from ADIM and I'VA.



This table completely overthrows the ſyſtem of the *Menwantaras*, previous to the Flood; for it is declared in the *puránas*, that at the end of every *Menwantara*, the whole human race is deſtroyed, except one *Menu*, who makes his eſcape in a boat with the ſeven *Rĭſhis*. But, according to the preſent table, *Swayambhuva* went through every *Menwantara* and died in the ſixth; *Dhruva* alſo ſaw five *Menwantaras* and died on the ſixth. *Uttama*, *Tamaſa*, and *Raĭvata*, being brothers, lived during the courſe of ſeveral *Menwantaras*, and when *Uttama* made his eſcape in a boat, beſides the ſeven *Rĭſhis*, he muſt have taken with him his two brothers, with *Dhruva* and *Swayambhuva*. Of theſe *Menus* little more is recorded in the *puránas*, than that they had a numerous offſpring; that certain *Devatas* made their appearance; and that they diſcomfited the giants. The mortal father of *Swarochiſa* is not known. His divine father was *Agni*; hence, he is ſuppoſed by ſome to be the ſame with *Agnidhra*.

During the reign of the fourth *Menu*, occurred the famous war between the *elephants* and the *crocodiles*, which, in the *puránas*, is aſſerted to have happened in the

ſacred

ſacred iſles in the weſt. What was the origin of it we are not told; but whenever the *elephants* went to a lake, either to drink or to bathe, the *crocodiles* laying in wait, dragged them into the water and devoured them. The *Gujindra* or *Nag'náth*, the lord of the *elephants*, was once attacked by the chief of the *grahas* or *crocodiles* on the bank of a *lake*, in one of the *ſacred iſles* called *Suvarnéya*; a dreadful conflict took place, and the *Nag'náth* was almoſt overpowered, when he called on *Heri* or *Viſhnu*, who reſcued him, and put an end to the war. What could give riſe to ſuch an extravagant tale I cannot determine, but ſome obvious traces of it ſtill remain in the *ſacred iſles in the weſt*, for almoſt every lake in *Wales* has a ſtrange ſtory attached to it, of battles fought there between an *ox* and a *beaver*, both of an uncommon ſize. At night the lowing of the *ox* and the rattling of the chain, with which the *Ychain-bannawg* or great *ox* endeavours to pull out of the water the *aranc* or *beaver*, are often heard. It is well known that *elephants* were called *oxen* in the weſt, and the ancient *Romans* had no other name for them. It may be objected, that if there had been *elephants* in the *ſacred iſles*, the inhabitants would have had names for them; but the *Cymri* are certainly a very modern tribe, relatively to the times we are ſpeaking of; and probably there were no *elephants* or *crocodiles* when they ſettled there; but, hearing of a ſtrange ſtory of battles between a large land animal and an amphibious one, they concluded that theſe two animals could be no other than the *ox* and *beaver*, the largeſt of the kind they were acquainted with, *nag',náhhâ ſi'han*, or the place of the *nag'náth*, or lord of the elephant race, is well known to the antiquaries of *Juvernia*.

During the ſixth *dynaſty* came to paſs the famous *churning of the ocean*, which is poſitively declared in the *purána* to have happened in the *ſea* of *milk*, or more properly, as it is often called alſo, the *White Sea*, which ſurrounds the *ſacred iſles* in the weſt, and is thus denominated according to the *Treloca-derpan*, becauſe it waſhes the ſhores of the *white iſland*, the principal of the *ſacred iſles*. The *white iſland* in *Sanſcrit*, *ſweta-dwip* or *chira-dwip*, is as famous in the eaſt as it is in the weſt. It may ſeem ſtrange, that iſlands ſo remote ſhould be known to the *puránics*; but the truth is, that the *védas* were not originally made known to mankind in *India*. The *Bráhmens* themſelves acknowledge that they are not natives of *India*, but that they deſcended into the plains of *Hinduſtan* through the paſs of *Heridwar*.

The old continent is well deſcribed in the *puránas*, but more particularly the countries in which the *védas* were made public; and in which the doctrine they contain flouriſhed for a long time. Accordingly the *ſacred iſles* in the weſt, the countries

countries bordering on the *Nile*, and, laſt of all, *India*, are better and more minutely deſcribed than any other country. *Atri* called *Edris*, and *Idris*, in the countries to the weſt of *India*, carried the *védas* from the abode of the gods on the ſummit of *Meru*, firſt, to the *ſacred iſle*; thence to the banks of the *Nile*; and, laſtly, to the borders of *India*. The place of his abode, whilſt in the *ſacred iſles*, became afterwards a famous place of worſhip under the name of *Atri-ſt'han*, the *place* or *ſeat* of *Atri* or *Idris*. It is often mentioned in the *puránas*, and deſcribed to be on a high mountain, not far from the ſea ſhore.

I ſhall paſs over the four ages, as they do not appear to anſwer any purpoſe, either aſtronomical or hiſtorical. They are called by the ſame names that were uſed by the *Greek* mythologiſts; except the fourth, which is called by the *Hindus* the *earthen* age. I ſhall only remark, that *Menu* in his Inſtitutes ſays, that in the firſt or *golden* age,* men, free from diſeaſe, lived four hundred years; but in the ſecond, and the ſucceeding ages, their lives were leſſened gradually by one quarter; that in the *cali-yug*, or preſent age, men lived only one hundred years. This may ſerve to fix the period and duration of the firſt ages: for it is obvious, that the whole paſſage refers to natural years.

I ſhall now conclude this account of *antediluvian* hiſtory by obſerving, that the firſt deſcendants of *Swayambhuva* are repreſented in the *puránas*, as living in the mountains to the north of *India* towards the ſources of the *Ganges*, and downwards as far as *Serinágara* and *Hari-dwár*. But the rulers of mankind lived on the ſummit of *Meru* towards the north; where they appear to have eſtabliſhed the ſeat of juſtice, as the *puránas* make frequent mention of the oppreſſed repairing thither for redreſs. *India*, at that time, ſeems to have been perfectly inſulated; and we know, that from the mouth of the *Indus* to *Dehli*, and thence to the mouth of the *Ganges*, the country is perfectly level, without even a ſingle hillock; but this ſubject is foreign to my preſent purpoſe, and may be reſumed hereafter. The generations after the Flood, exhibited in the accompanying table, begin with the famous *Atri*, and end with *Chandra-Gupta*, who was contemporary with *Alexander the Great*. *Buddha*, the grandſon of *Atri*, married *Ila*, daughter of *Satyavrata* or *Noah*, who was born to him in his old age.

Atri for the purpoſe of making the *védas* known to mankind, had three ſons; or, as it is declared in the *puránas*, the *Trimurti*, or *Hindu Triad*, was incarnated in

* Inſtitutes of *Menu*, p. 11.

his houſe. The eldeſt called *Soma*, or the moon in a human ſhape, was a portion or form of *Bráhma*. To him the *ſacred iſles* in the weſt were allotted. He is ſtill alive though inviſible, and is acknowledged as the chief of the ſacerdotal tribe to this day.

The ſecond, a portion of *Viſhnu*, was called *Datta* or *Date* and *Dattátréya*. The countries bordering on the *Nile* fell to his ſhare. He is the *Toth* of the *Egyptians*.

The third was a cholerick ſaint called *Durváſás*. He was a portion of *Mahádéva*, but had no fixed place aſſigned to him; and he is generally rambling over the world, doing more miſchief than good; however, we find him very often performing *Tapaſya* in the mountains of *Armenia*. A dreadful conflagration happened once in that country, which ſpreading all over *Cuſha-dwipa* deſtroyed all the *animals* and *vegetables*. *Arama*, the *ſon* of a *ſon* of *Satyavrata* (and conſequently the *Aram* of Scripture) who was hunting through theſe mountains, was involved with his party in the general conflagration; a puniſhment inflicted, it is ſuppoſed, for his having inadvertently wounded the foot of *Durváſás* with an arrow. The death of *Arama* happened three hundred years after the Flood, according to the *puránas*,* as noticed in a former eſſay on *Egypt*.

Chandra-Gupta, or he who was ſaved by the interpoſition of *Lunus* or the *Moon*, is called alſo *Chandra* in a poem quoted by SIR WILLIAM JONES. The *Greeks* call him *Sandracuptos*, *Sandracottos*, and *Androcottos*. *Sandrocottos* is generally uſed by the hiſtorians of *Alexander*; and *Sandracuptos* is found in the works of *Athenæas*. *Sir William Jones*, from a poem written by *Somadeva*, and a tragedy called the coronation of *Chandra* or *Chandra-Gupta*,† diſcovered that he really was the *Indian* king mentioned by the *hiſtorians* of *Alexander*, under the name of *Sandracottos*. Theſe two poems I have not been able to procure; but I have found another dramatic piece, intitled *Mudra-Rácſhaſa*, or the *ſeal* of *Rácſhaſa*, which is divided into two parts; the firſt may be called the coronation of *Chandra-Gupta*, and the ſecond the reconciliation of *Chandra-Gupta* with *Mantri-Rácſhaſa*, the prime miniſter of his father.

The hiſtory of *Chandra-Gupta* is related, though in few words, in the *Viſhnu-purána*, the *Bhagawat*, and two other books, one of which is called *Brahatcatha*, and the other is a lexicon called *Camandaca*: the two laſt are ſuppoſed to be about ſix or ſeven hundred years old.

* Eſſay on *Egypt*, in the *Aſiat. Reſ.* vol. III.

† *Aſiatick Reſearches*, vol. IV.

In

In the *Viſhnu-purána* we read, "unto *Nanda* ſhall be born nine ſons; *Cotilya*, his "miniſter, ſhall deſtroy them, and place *Chandra-Gupta* on the throne."

In the *Bhagawat* we read, "from the womb of *Sudri*, *Nanda* ſhall be born. His "eldeſt ſon will be called *Sumalya*, and he ſhall have eight ſons more; theſe a "*Bráhmen* (called *Cotilya*, *Vatſayana*, and *Chanacya* in the commentary) ſhall de-"ſtroy, after them a *Maurya* ſhall reign in the *Cali-yug*. This *Bráhmen* will place "*Chandra-Gupta* on the throne." In the *Brahatcatha* it is ſaid, that this revolution was effected in ſeven days, and the nine children of *Nanda* put to death. In the *Camandaca*, *Chanacyas* is called *Viſhnu-Gupta*. The following is an abſtract of the hiſtory of *Chandra-Gupta* from the *Mudra-Rácſhaſa*:

Nanda, king of *Prachi*, was ſon of *Maha Nandi*, by a female ſlave of the *Sudra* tribe: hence *Nanda* was called *Sudra*. He was a good king, juſt and equitable, and paid due reſpect to the *Bráhmens*: he was avaricious, but he reſpected his ſubjects. He was originally king of *Magada*, now called *South-Bahar*, which had been in the poſſeſſion of his anceſtors ſince the days of *Crĭſhna*; by the ſtrength of his arm he ſubdued all the kings of the country, and like another *Paraſu-Ráma* deſtroyed the remnants of the *Cſhettris*. He had two wives, *Ratnavati* and *Mura*. By the firſt he had nine ſons, called the *Sumalyadicas*, from the eldeſt, whoſe name was *Sumalya*, (though in the *dramas*, he is called *Sarvarthaſidd'hi*); by *Mura* he had *Chandra-Gupta*, and many others, who were known by the general appellation of *Mauryas*, becauſe they were born of *Mura*.

Nanda, when far advanced in years, was taken ill ſuddenly, and to all appearance died. He ſoon revived, to the great joy of his ſubjects: but his ſenſes appeared to be greatly deranged, for he no longer ſpoke or acted as before. While ſome aſcribed the monarch's imbecility to the effects of a certain poiſon, which is known to impair the faculties at leaſt, when it proves too weak to deſtroy the life of thoſe to whom it is adminiſtered, *Mantri-Rácſhaſa*, his prime miniſter, was firmly perſuaded, according to a notion very prevalent among the *Hindus*, that upon his maſter's death, ſome magician had entered into the lifeleſs corpſe which was now reanimated and actuated by his preſence. He, therefore, ſecretly ordered, that ſtrict ſearch might be made for the magician's own body: for as, according to the tenets of their ſuperſtition, this would neceſſarily be rendered inviſible, and continue ſo, as long as its ſpirit informed another body; ſo he naturally concluded the magician had enjoined one of his faithful followers to watch it, until the diſſolution of the ſpell ſhould end the trance. In conſequence of theſe orders, two men being diſcovered,

vered keeping watch over a corpſe on the banks of the *Ganges*, he ordered them to be ſeized and thrown into the river, and cauſed the body to be burnt immediately. It proved to belong to *Chandra-das*, a king of a ſmall domain in the weſtern part of *India* beyond the *Vindhyan* hills, the capital whereof is called *Vicat-palli*. This prince having been obliged to ſave himſelf by flight, from the *Yavanas* or *Greeks*, who had diſpoſſeſſed him of his kingdom, had aſſumed, with the garb of a penitent, the name of *Suvid'ha*. *Mantri-Racſhaſa* having thus puniſhed the magician for his preſumption, left the country.

When *Nanda* recovered from his illneſs he became a tyrant, or, rather, having entruſted *Sacatara*, his prime miniſter, with the reins of government, the latter ruled with abſolute ſway. As the old king was one day hunting with his miniſter, towards the hills to the ſouth of the town, he complained of his being thirſty, and quitting his attendants, repaired with *Sacatara* to a beautiful *reſervoir*, under a large ſpreading tree, near a cave in the hills, called *Patalcandira*, or the paſſage leading to the infernal regions; there *Sacatara* flung the old man into the *reſervoir*, and threw a large ſtone upon him. In the evening he returned to the imperial city bringing back the king's horſe, and reported, that his maſter had quitted his attendants and rode into the foreſt; what was become of him he knew not, but he had found his horſe grazing under a tree. Some days after *Sacatara* with *Vacranara*, one of the ſecretaries of ſtate, placed *Ugradhanwa*, one of the younger ſons of *Nanda*, on the throne.

The young king being diſſatisfied with *Sacatara's* account of his father's diſappearance, ſet about farther enquiries during the miniſter's abſence, but theſe proving as little ſatisfactory, he aſſembled the principal perſons of his court, and threatened them all with death, if, in three days, they failed to bring him certain intelligence what was become of his father. This menace ſucceeded, for, on the fourth day, they reported, that *Sacatara* had murdered the old king, and that his remains were concealed under a ſtone in the *reſervoir* near *Patalcandra*; *Ugradhanwa* immediately ſent people with camels, who returned in the evening, with the body and the ſtone that had covered it. *Sacatara* confeſſed the murder, and was thereupon condemned to be ſhut up with his family in a narrow room, the door of which was walled up, and a ſmall opening only left for the conveyance of their ſcanty allowance. They all died in a ſhort time, except the youngeſt ſon *Vicatara*, whom the young king ordered to be releaſed, and took into his ſervice. But *Vicatara* meditated revenge; and the king having directed him to call

ſome

ſome *Bráhman* to aſſiſt at the *ſraddha* he was going to perform, in honour of his anceſtor, *Vicatara*, brought an ill-natured prieſt of a moſt ſavage appearance, in the expectation that the king might be tempted, from diſguſt at ſo offenſive an object, to offer ſome affront to the *Bráhman*, who, in revenge, would denounce a curſe againſt him. The plan ſucceeded to his wiſh: the king ordered the prieſt to be turned out, and the latter laid a dreadful imprecation upon him, ſwearing at the ſame time, that he would never tie up his *ſhicá* or lock of hair, till he had effected his ruin. The enraged prieſt then ran out of the palace exclaiming, whoever wiſhes to be king let him follow me. *Chandra-Gupta* immediately aroſe, with eight of his friends, and went after him. They croſſed the *Ganges*, with all poſſible diſpatch, and viſited the king of *Népal*, called *Parvateſwara*, or the lord of the mountains, who received them kindly. They entreated him to aſſiſt them with troops and money, *Chandra-Gupta* promiſing, at the ſame time, to give him the half of the empire of *Práchi*, in caſe they ſhould be ſucceſsful. *Parvateſwara* anſwered, that he could not bring into the field a ſufficient force to effect the conqueſt of ſo powerful an empire; but, as he was on good terms with the *Yavans* or *Greeks*, the *Sacas* or *Indo-Scythians*, the people of *Camboja* or *Gayni*, the *Ciratas* or inhabitants of the mountains to the eaſtward of *Népal*, he could depend on their aſſiſtance. *Ugradhanwa* enraged at the behaviour of *Chandra-Gupta*, ordered all his brothers to be put to death.

The matter, however, is related differently in other books, which ſtate, that *Nanda*, ſeeing himſelf far advanced in years, directed that, after his deceaſe, his kingdom ſhould be equally divided between the *Sumalyadicas*, and that a decent allowance ſhould be given to the *Mauryas* or children of *Mura*, but the *Sumalyadicas* being jealous of the *Mauryas*, put them all to death, except *Chandra-Gupta*, who, being ſaved through the protection of *Lunus*, out of gratitude aſſumed the name of *Chandra-Gupta*, or ſaved by the moon: but to reſume the narrative.

Parváteſwara took the field with a formidable army, accompanied by his brother *Virochana* and his own ſon *Malaya-Cetu*. The confederates ſoon came in ſight of the capital of the king of *Prachi*, who put himſelf at the head of his forces, and went out to meet them. A battle was fought, wherein *Ugradhanwa* was defeated, after a dreadful carnage, in which he himſelf loſt his life. The city was immediately ſurrounded, and *Sawartha-Siddhi*, the governor, ſeeing it impoſſible to hold out againſt ſo powerful an enemy, fled to the *Vindhyan* mountains, and became

came an anchoret. *Racſhaſa* went over to *Parvateſwara* *. *Chandra-Gupta*, being firmly eſtabliſhed on the throne, deſtroyed the *Sumalya dicas*, and diſmiſſed the allies, after having liberally rewarded them for their aſſiſtance: but he kept the *Yavans* or *Greeks*, and refuſed to give the half of the kingdom of *Prachi* to *Parvateſwara*, who, being unable to enforce his claim, returned to his own country meditating vengeance. By the advice of *Racſhaſa* he ſent a perſon to deſtroy *Chandra-Gupta*; but *Viſhnu-Gupta*, ſuſpecting the deſign, not only rendered it abortive, but turned it back upon the author, by gaining over the aſſaſſin to his intereſt, whom he engaged to murder *Parvateſwara*, which the villain accordingly effected. *Racſhaſa* urged *Malaya-Cetu* to revenge his father's death, but though pleaſed with the ſuggeſtion, he declined the enterprize, repreſenting to his councellor that *Chandra-Gupta* had a large body of *Yavans* or *Greeks* in his pay, had fortified his capital, and placed a numerous garriſon in it, with guards of *elephants* at all the gates; and finally, by the defection of their allies, who were either overawed by his power, or conciliated by his favour, had ſo firmly eſtabliſhed his authority, that no attempt could be made againſt him with any proſpect of ſucceſs.

In the mean time *Viſhnu-Gupta*, being conſcious that *Chandra-Gupta* could never be ſafe ſo long as he had to contend with a man of *Racſhaſa's* abilities, formed a plan to reconcile them, and this he effected in the following manner: there was in the capital a reſpectable merchant or banker, called *Chandana-Das*, an intimate friend of *Racſhaſa*. *Viſhnu-Gupta* adviſed *Chandra-Gupta* to confine him with his whole family: ſome time after he viſited the unfortunate priſoner, and told him that the only way to ſave himſelf and family from imminent deſtruction, was to effect a reconciliation between the king and *Racſhaſa*, and that, if he would follow his advice, he would point out to him the means of doing it. *Chandana-Das* aſſented, though from the known inveteracy of *Racſhaſa* againſt *Chandra-Gupta*, he had little hope of ſucceſs. Accordingly, he and *Viſhnu-Gupta*, betook themſelves privately to a place in the northern hills, where *Racſhaſa* had a country ſeat, to which he uſed to retire from the buſtle of buſineſs. There they erected a large pile of wood, and gave out that they intended to burn themſelves. *Racſhaſa* was aſtoniſhed when he heard of his friends' reſolution, and uſed every endeavour to diſſuade them from it; but *Chandana-Das* told him, he

* *Racſhaſa* on hearing of the death of *Sacatara* returned, and became prime miniſter of *Ugra-dhanwa*.

was

was determined to periſh in the flames with *Viſhnu-Gupta*, unleſs he would conſent to be reconciled to *Chandra-Gupta*. In the mean time the prince arrived with a retinue of five hundred men; when, ordering them to remain behind, he advanced alone towards *Racſhaſa*, to whom he bowed reſpectfully and made an offer of delivering up his ſword. *Racſhaſa* remained a long time inexorable, but at laſt, overcome by the joint entreaties of *Viſhnu-Gupta* and *Chandana-Das*, he ſuffered himſelf to be appeaſed, and was reconciled to the king, who made him his prime miniſter. *Viſhnu-Gupta*, having ſucceeded in bringing about this reconciliation, withdrew to reſume his former occupations; and *Chandra-Gupta* reigned afterwards many years, with juſtice and equity, and adored by his ſubjects.

By *Prachi* (in Sanſcrit) or the eaſt, is underſtood all the country from *Allahabad* to the eaſternmoſt limits of *India*: it is called alſo *purva*, an appellation of the ſame import, and *purob* in the ſpoken dialects. This laſt has been diſtorted into *purop* and *prurop* by European travellers of the laſt century. From *prachi* is obviouſly derived the name of *Praſii*, which the Greeks gave to the inhabitants of this country. It is divided into two parts: the firſt comprehends all the country from *Allahabad* to *Raj-mehal* and the weſtern branch of the *Ganges*; the ſecond includes *Bengal*, the greateſt part of which is known in Sanſcrit under the name of *Gancara-deſa*, or country of *Gancara*, from which the Greeks made *Gangaridas* or *Gangaridai*, in the firſt caſe. *Gancara* is ſtill the name of a ſmall diſtrict near the ſummit of the *Delta*.

Perhaps from theſe two countries called *Purva* is derived the appellation of *Parvaim* in Scripture, which appears with a dual form. According to Arrian's *Periplus*, *Bengal* was famous for its highly refined gold, called *Keltin* in the *Periplus* and *Canden* or *Calden* to this day. It is called *Kurden* in the *Ayeen Ackbery*.

The capital city of *Prachi* proper, or the weſtern part of it, is declared to be *Râj-griha*, or the royal manſion. According to the *puránas* it was built by a ſon of king *Prithu*, called *Haryacſha*. It was taken afterwards by *Bala-Rama*, the brother of *Crĭſhna*, who rebuilt it, and aſſigned it as a reſidence for one of his ſons, who are called in general *Baliputras*, or the children of *Bala*. From this circumſtance it was called *Balipura*, or the town of the ſon of *Bala*: but in the ſpoken dialects it was called *Bali-putra*, becauſe a *putra*, or ſon of *Bali*, reſided in it. From *Bâli-putra* the Greeks made *Palipatra* and *Pali-bothra*, and the inhabitants

habitants of the country, of which it was the capital, they denominated *Palibothri*, though this appellation more properly belongs to another tribe of *Hindus*, of whom I gave ſome account in a former eſſay on Egypt.

DIODORUS SICULUS, ſpeaking of *Palibothra*, ſays, that it had been built by the Indian *Hercules*, who, according to *Megaſthenes*, as quoted to *Arrian*, was worſhipped by the *Suraſeni*. Their chief cities were *Methora* and *Cliſobora*; the firſt is now called *Mutra**, the other *Mugu-nagur* by the Muſulmans, and *Caliſa-pura* by the Hindus. The whole country about *Mutra* is called *Suraſena* to this day by learned *Bráhmens*.

The Indian *Hercules*, according to *Cicero*, was called BELUS. He is the ſame with BALA, the brother of CRISHNA, and both are conjointly worſhipped at *Mutra*; indeed, they are conſidered as one *Avatara*, or incarnation of *Viſhnu*. *Bala* is repreſented as a ſtout man with a club in his hand. He is called alſo *Bala-Roma*. To decline the word *Bala* you muſt begin with *Balas*, which I conceive to be an obſolete form, preſerved only for the purpoſe of declenſion, and etymological derivation. The firſt *a* in *Bala* is pronounced like the firſt *a* in *America*, in the eaſtern parts of *India*: but in the weſtern parts, and in *Benares*, it is pronounced exactly like the French *e* in the pronouns *je*, *me*, *le*, &c. thus the difference between *Balas* and *Belus* is not very great. As *Bala* ſprung from *Viſhnu*, or *Heri*, he is certainly *Heri-cula*, *Heri-culas*, and *Hercules*. *Diodorus Siculus* ſays, that the poſterity of *Hercules* reigned for many centuries in *Pali-bothra*, but that they did nothing worthy of being recorded; and, indeed, their names are not even mentioned in the *puránas*.

In the *Ganga-mahatmya*, in which all places of worſhip, and others of note, on the banks of the *Ganges*, are mentioned, the preſent town of *Raj-mehal* is poſitively declared to be the ancient city of *Raj-griha* of the *puránas*, the capital of *Prachi*, which afterwards was called *Bali-putra*.

Raj-griha, and *Raj-mehal* in *Perſian*, ſignify the ſame thing. It is alſo called by the natives *Raj-mandalam*, and by *Ptolemy Palibothra-mandalon* for *Bali-putra-mandalam*: the firſt ſignifies the royal manſion, and the ſecond the manſion of the *Bala-putras*. In a more extenſive ſenſe *mandalam* ſignifies the circle, or coun-

* In Sanſcrit it is called *Mat'hura*.

try

try belonging to the *Bali-putras*. In this ſenſe we ſay *Coro-mandel*, for *Cholo* or rather *Jala-mandal*.

Here I muſt obſerve, the preſent Raj-mehal is not preciſely on the ſpot where the ancient Raj-griha, or Bali-putra, ſtood owing to the ſtrange devaſtation of the Ganges in that part of the country for ſeveral centuries paſt. Theſe devaſtations are atteſted by univerſal tradition, as well as by hiſtorical records, and the concurring teſtimony of RALPH, FITCH, TAVERNIER, and other European travellers of the laſt century. When I was at Raj-mehal in January laſt, I was deſirous of making particular enquiries on the ſpot, but I could only meet with a few Bráhmens, and thoſe very ignorant; all they could tell me was, that in former ages Raj-mehal, or Raj-mandal, was an immenſe city, that it extended as far as the eaſtern limits of Boglipoore towards Terriagully, but that the Ganges, which formerly ran a great way towards the N. E. and Eaſt, had ſwallowed it up; and that the preſent Raj-mehal, formerly a ſuburb of the ancient city, was all that remained of that famous place. For farther particulars they referred me to learned pundits who unfortunately lived in the interior parts of the country.

In the Mudrá-rácſhaſa, it is declared, that the city in which Chandra-Gupta reſided, was to the north of the hills, and, from ſome particular circumſtances that will be noticed hereafter, it appears that they could not be above five or ſix miles diſtant from it. Megaſthenes informs us alſo, that this famous city was ſituated near the confluence of the Erannoboas with the Ganges. The Erannoboas has been ſuppoſed to be the Sone, which has the epithet of Hirán-ya-baha, or gold-waſting, given to it in ſome poems. The Sone, however, is mentioned as a diſtinct river from the Erannoboas, both by Pliny and Arrian, on the authority of Megaſthenes: and the word Hirán-ya-baha, from which the Greeks made Erannoboas, is not a *proper* name, but an *appellative* (as the Greek Chryſorhoas), applicable, and is applied, to any river that rolls down particles of gold with its ſands. Moſt rivers in India as well as in Europe, and more particularly the Ganges, with all the rivers that come down from the northern hills, are famous in ancient hiſtory for their golden ſands. The Coſſoanus of Arrian, or Coſſoagus of Pliny, is not the river Cooſy, but the Coſſanor Cattan, called alſo Coſſay, Coſſar, and Caſſay, which runs through the province of Midnapoor, and joins the remains of the weſtern branch of the Ganges below Nanga-Cuſſan.

The Erannoboas, now the Cooſy, has greatly altered its courſe for ſeveral cen-

turies paſt. It now joins the Ganges, about five and twenty miles above the place where it united with that river in the days of Megaſthenes; but the old bed, with a ſmall ſtream, is ſtill viſible, and is called to this day Puranah-bahah the old Cooſy, or the old channel. It is well delineated in Major RENNELL'S ATLAS, and it joins an arm of the Ganges, formerly the bed of that river, near a place called Nabob-gunge. From Nabob-gunge the Ganges formerly took an extenſive ſweep to the eaſtward, towards Hyatpoor, and the old banks of the river are ſtill viſible in that direction. From theſe facts, ſupported by a cloſe inſpection of the country, I am of opinion, Baliputra was ſituated near the confluence of the old Cooſy with the Ganges, and on the ſpot where the villages of Mynyaree and Biſſuntpoor-gola now ſtand; the Ganges proceeding at that time in an eaſterly direction from Nabob-gunge, and to the north of theſe villages. The fortified part of Palibothra, according to Megaſthenes, extended about ten miles in length, while the breadth was only two. But the ſuburbs, which extended along the banks of the Ganges, were, I doubt not, ten or fifteen miles in length. Thus *Dehli*, whilſt in a flouriſhing ſtate, extended above thirty miles along the banks of the Jumna, but, except about the centre of the town, conſiſted properly of only a ſingle ſtreet parallel to the river.

The ancient geographers, as Strabo, Ptolemy, and Pliny, have deſcribed the ſituation of Palibothra in ſuch a manner that it is hardly poſſible to miſtake it.

Strabo *, who cites Artemidorus, ſays, that the Ganges on its entering the plains of India, runs in a ſouth direction as far as a town called Ganges, (Ganga-puri,) now Allahabad, and from thence, with an eaſterly courſe as far as Palibothra, thence to the ſea (according to the Chreſtomathia from Strabo) in a ſoutherly direction. No other place but that which we have aſſigned for the ſite of Baliputra, anſwers to this deſcription of Artemidorus.

Pliny, from Megaſthenes, who, according to Strabo, had repeatedly viſited the court of Chandra-Gupta, ſays, that Palibothra was 425 Roman miles from the confluence of the Jumna with the Ganges. Here it is neceſſary to premiſe, that Megaſthenes ſays the highways in India were meaſured, and that at the end of a *certain Indian meaſure* (which is not named, but is ſaid to be equal to *ten ſtadia*,) there was a *cippus* or ſort of *column* erected. No Indian meaſure anſwers to this but the Brahmeni, or aſtronomical coſs, of four to a yojana. This is the Hindu

* B. XV. p. 719.

ſtatute

ſtatute coſs, and equal to 1,227 Britiſh miles. It is uſed to this day by aſtronomers, and by the inhabitants of the Panjab, hence it is very often called the Panjabi-coſs: thus the diſtance from Lahor to Multan is reckoned, to this day, to be 145 Panjabi, or 90 common coſs.

In order to aſcertain the number of *Bráhmeni* coſs reckoned formerly between *Allahabad* and *Palibothra*, multiply the 425 Roman miles by eight (for Pliny reckoned ſo many ſtadia to a mile), and divide the whole by ten (the number of ſtadia to a coſs according to Magaſthenes), and we ſhall have 340 *Bráhmeni* coſs, or 417.18 Britiſh miles: and this will bring us to within two miles of the confluence of the old Cooſy with the Ganges.

Strabo informs us alſo that they generally reckoned 6000 ſtadia from *Palibothra* to the mouth of the Ganges; and from what he ſays, it is plain, that theſe 6000 ſtadia are to be underſtood of ſuch as were uſed at ſea, whereof about 1100 make a degree. Thus 6000 of theſe ſtadia give 382 Britiſh miles. According to Pliny they reckoned more accurately 6380 ſtadia or 406 Britiſh miles, which is really the diſtance by water between the confluence of the old Cooſy with the Ganges, and Injellee at the mouth of the Ganges. Ptolemy has been equally accurate in aſſigning the ſituation of Palibothra relatively to the towns on the banks of the Ganges, which he mentions above and below it. Let us begin from the confluence of the Tuſo, now the Tonſe, with the Ganges.

Tuſo, now the *Tonſe*, (See Major *Rennel's* courſe of the Ganges.)

Cindia, now *Conteeah*.

Sagala (in Sanſcrit *Suchela*, but in the vulgar dialects *Sokheila*) now Vindya Vaſni near Mirzapoor.

Sambalaca, in Sanſcrit *Sammalaca*. It is now called *Sumbulpoor*, and is ſituated in an iſland oppoſite to Patna. It is called Sabelpoor in Major *Rennel's* Map of the courſe of the Ganges, but the true name is Sumbulpoor. It derived its celebrity, as well as its name, from games (for ſo the word Sammalaca imports) performed there every year in honour of certain heroes of antiquity. During the celebration of theſe games, Sammalaca was frequented by a prodigious concourſe of merchants, and all ſorts of people, inaſmuch that it was conſidered as the greateſt fair in the country. This place is mentioned in the *Haricſhetra Maha-tmya*, which contains a deſcription of the principal places of worſhip in North Bahar.

Boræca, now *Borounca*, oppoſite to Bar and Rajowly. Near Mowah on the Byar, about three miles from the Ganges, which formerly ran cloſe by it. It was the place

place of reſidence of the kings of the Bhur tribe, once very powerful in this country.

Sigala, Mongier. In *Ptolemy's* time it was ſituated at the junction of the river Fulgo with the Ganges, which he derives from the mountains of Uxentus, as that word probably is, from *Echăc-dés*, or country of *Echăc*, or, as it is written in the maps, *Etchauk*: there are five or ſix places of this name in the mountains of Ramgur. The river Fulgo is the Cacuthis of *Arrian*, ſo called from its running through the country of Cicata. According to the ſame author, the Andomatis or Dummoody had its ſource in the ſame mountains.

The Ganges formerly ran in almoſt a direct line from Borounka to Monghier, the Fulgo uniting with it near this place; but ſince the river, taking a ſoutherly courſe, has made great encroachments upon the northern boundary of Monghier, which ſtretched out a conſiderable diſtance in that direction to a hill of a conical ſhape, which the ſtream has totally waſhed away. This fact is aſcertained on the evidence of ſeveral Hindu ſacred books, particularly of the *Gangamahalmyà*; for, at the time this was written, one half of the hill ſtill remained. *Sigala* appears to be corrupted from the Sanſcrit *Sirhala, a plough.* At the birth of CHRISHNA a ſheet of fire like the garments of the gods, appeared above the place called Vindhyavaſni, near Mirzapoor. This appearance is called *Suchéla*, or, in the vulgar dialects, *Sukhela* or *Sukhaila*, from which the Greeks made *Sagala.* This fiery meteor forced its way through the earth, and re-appeared near Monghier, tearing and furrowing up the ground like a plough, or *ſirhala.* The place where it re-appeared is near Monghier, and there is a cave formed by lightning ſacred to *Devi.*

Palibothra. Near the confluence of the old Cooſy with the Ganges.

Aſthà-Gùra, now *Jetta-gurry*, or *Jetta-coory*, in the inland parts of the country and at the entrance of a famous paſs through the Raj-mehal hills.

Corygazus, near Palibothra, and below it, is derived from the Sanſcrit *Gauri-Goſchi*, or the *wilderneſs of Gauri*, a form of *Devi.* The famous town of Gaur derives its name from it. It is called by *Nonnus* in his *Dionyſiacs* Gagus for Goſcha, or the Goſcha by excellence. He ſays it was ſurrounded with a net-work, and that it was a journey of two days in circumference. This ſort of incloſure is ſtill practiſed in the eaſtern parts of *India*, to prevent cattle from ſtraying, or being moleſted by tigers and other ferocious animals. The kings of *Perſia* ſurround their Haram, when encamped with a net-work; and formerly, the *Perſians* when beſieging

ſieging a town, uſed to form a line of contravallation with nets! The northern part only, towards *Cotwally*, was inhabited at that early period.

Tondota. Tanda-haut (*haut* is a market). This name in different MSS. of *Ptolemy*, is variouſly written, for we read alſo, *Condota* and *Sondota:* and unfortunately, theſe three readings are true *Hindu* names of places, for we have *Sanda-haut*, and *Cunda-haut*. However, *Tanda-haut*, or in *Sanſcrit*, *Tandá-haut* appears to be *Tandá*, formerly a market place, called alſo *Tanrah*, *Tarrah*, *Tardah*, and *Tanda*. It is ſituated near the ſouthern extremity of the high grounds of *Gaur*, on the banks of the old bed of the *Ganges*.

Tamalites. Samal-haut. No longer a *Hát*, but ſimply *Samal-poore*. *Tamal-hat* is not a *Hindu* name, and, I ſuppoſe here, a miſtake of the tranſcriber. It is between *Downapoor* and *Sooty*. (See *Rennel's* map.) The *Ganges* ran formerly cloſe to theſe three places; and Mr. *Bernier*, in his way from *Benares* to *Coſſimbazar*, landed at *Downapoor*.

Elydna is probably *Laudannah*.

Cartinaga, the capital of the *Cocconagæ*, or rather *Cottonaga*, is called now *Cuttunga*, it is near *Soory*; the *Portugueſe*, laſt century, called it *Cartunga* and *Catrunga*.

Cartiſina now *Carjuna*, or *Cajwana*, is near *Beudwau*. I ſhall juſt obſerve here, that the three laſt mentioned towns are erroneouſly placed, in *Mercator's* map, on the banks of the *Ganges*. *Ptolemy* ſays no ſuch thing.

The next place on the banks of the *Ganges* is

Orcophonta. Hararpunt or *Haryárpunt* in the vulgar dialects; in Sanſcrit it is *Hararparna* from *Hara* and *Arpana*, which implies a piece of ground conſecrated to *Hara* or *Mahá-deva*. The word *Arpana* is always pronounced in the ſpoken dialects, *Arpunt*; thus they ſay, *Criſhnarpunt*. It is now *Rangamatty*. Here was formerly a place of worſhip, dedicated to *Mahá-deva* or *Hara*, with an extenſive tract of ground appropriated to the worſhip of the God; but the Ganges having deſtroyed the place of worſhip, and the holy ground having been reſumed during the invaſions of the Muſulmans, it is entirely neglected. It ſtill exiſts, however, as a place of worſhip, only the image of the Phallus is removed to a greater diſtance from the river.

Aga nagara, literally the *Nagara*, or town of *Aga*. It is ſtill a famous place of worſhip in the *dwipa* (iſland or peninſula) of Aga, called, from that circumſtance, *Aga-dwip*: the true name is *Agar-dwip*. A few miles above Aga-nagara, was the city called *Catadupe* by *Arrian* from *Cativa-dwip*, a place famous in the *pu*[illegible]. It is now called Catwa.

Ganges-

Ganges-regia, now *Satgauw*, near *Hoogly*. It is a famous place of worſhip, and was formerly the reſidence of the kings of the country, and ſaid to have been a city of immenſe ſize, ſo as to have ſwallowed up one hundred villages, as the name imports: however, though they write its name *Satgauw*, I believe it ſhould be *Sátgauw*, or the *ſeven villages*, becauſe there were ſo many cenſurated to the Seven *Ríſhis*, and each of them had one appropriated to his own uſe.

Palura, now *Palorah*, or *Pollerah*, four or five miles to the weſt of *Oolbarya* below *Budge-budge*. A branch of the Ganges ran formerly to the weſt of it, and after paſſing by Naga-baſan, or Nagam-bapan, fell into the ſea towards Ingellee. From Nagam-baſan the weſtern branch of the Ganges was denominated *Cambuſon Oſtium* by the Greeks. This place is now ridiculouſly called *Nanga-baſſan*, or the naked abode; whereas its true name is *Naga-baſan*, or the abode of ſnakes, with which the country abounds.

Sir WILLIAM JONES ſays, "the only difficulty in deciding the ſituation of Pa-"libothra to be the ſame as Patali-putra, to which the names and moſt circum-"ſtances nearly correſpond, aroſe from hence, that the latter place extended from "the confluence of the Sone and the Ganges to the ſite of Patna, whereas Palibo-"thra ſtood at the junction of the Ganges and the Erannoboas; but this difficulty "has been removed, by finding in a claſſical Sanſcrit book, near two thouſand "years old, that Hiranyabahee, or golden armed, which the Greeks changed into "Erannoboas, or the river with a lovely murmur, was, in fact, another name for "the Sona itſelf, though Megaſthenes, from ignorance or inattention, has named "them ſeparately."

But this explanation will not be found ſufficient to ſolve the difficulty, if Hiranyabaha be, as I conceive it is not, the proper name of a river; but an appellative, from an accident common to many rivers.

Patali-putra was certainly the capital, and the reſidence of the kings of Magadha or ſouth Behar. In the Mudra Rácſhaſa, of which I have related the argument, the capital city of Chandra-Gupta is called Cuſumapoor throughout the piece, except in one paſſage, where it ſeems to be confounded with Patali-putra, as if they were different names for the ſame place. In the paſſage alluded to, Rácſhaſa aſks one of his meſſengers, "If he had been at Cuſumapoor?" the man replies, "Yes, I have "been at Patali-putra." But Sumapon, or Phulwaree, to call it by its modern name, was, as the word imports, a pleaſure or flower garden, belonging to the kings of Patna, and ſituate, indeed, about ten miles W. S. W. from that city, but, certainly,

tainly, never ſurrounded with fortifications, which Annanta, the author of the Mudra Rácſhaſa ſays, the abode of Chandra-Gupta was. It may be offered in excuſe, for ſuch blunders as theſe, that the authors of this, and the other poems and plays I have mentioned, written on the ſubject of Chandra-Gupta, which are certainly modern productions, were foreigners, inhabitants, if not natives, of the Deccan; at leaſt Ananta was, for he declares that he lived on the banks of the Godaveri.

But though the foregoing conſiderations muſt place the authority of theſe writers far below the ancients, whom I have cited for the purpoſe of determining the ſituation of Palibothra; yet, if we conſider the ſcene of action, in connexion with the incidents of the ſtory, in the Mudra Rácſhaſa, it will afford us clear evidence, that the city of Chandra-Gupta could not have ſtood on the ſite of Patna; and, a pretty ſtrong preſumption alſo, that its real ſituation was where I have placed it, that is to ſay, at no great diſtance from where Rajé-mehal now ſtands. For, firſt, the city was in the neighbourhood of ſome hills which lay to the ſouthward of it. Their ſituation is expreſsly mentioned; and for their contiguity, it may be inferred, though the preciſe diſtance be not ſet down from hence, that king Nanda's going out to hunt, his retiring to the reſervoir, among the hills near Patalcandara, to quench his thirſt, his murder there, and the ſubſequent return of the aſſaſſin to the city with his maſter's horſe, are all occurrences related, as having happened on the ſame day. The meſſengers alſo who were ſent by the young king after the diſcovery of the murder to fetch the body, executed their commiſſion and returned to the city the ſame day. The events are natural and probable, if the city of Chandra-Gupta was on the ſite of Rajé-mehal, or in the neighbourhood of that place, but are utterly incredible, if applied to the ſituation of Patna, from which the hills recede at leaſt thirty miles in any direction.

Again, Patalcandara in Sanſcrit, ſignifies the crater of a volcano; and in fact, the hills that form the glen, in which is ſituated the place now called Mootijarna, or the pearl-dropping ſpring, agreeing perfectly in the circumſtances of diſtance and direction from Rajé-mehal with the reſervoir of Patalcandara, as deſcribed in the poem, have very much the appearance of a crater of an old volcano. I cannot ſay I have ever been on the very ſpot, but I have obſerved in the neighbourhood, ſubſtances that bore undoubted marks of their being volcanic productions: no ſuch appearances are to be ſeen at Patna, nor any trace of there having ever been a volcano there, or near it. Mr. Davis has given a curious deſcription of Mootijarna,

illuſtrated

illuſtrated with elegant drawings. He informs us there is a tradition, that the reſervoir was built by Sultan Suja: perhaps he only repaired it.

The confuſion Ananta, and the other authors above alluded to, have made in the names of Patali-putra and Bali-putra, appears to me not difficult to be accounted for. While the ſovereignty of the kings of Maghadha, or ſouth Bahar, was exerciſed within the limits of their hereditary dominions, the ſeat of their government was Patali-putra, or Patya: but Janaſandha, one of the anceſtors of Chandra-Gupta, having ſubdued the whole of Prachi, as we read in the puránas, fixed his reſidence at Bali-putra, and there he ſuffered a moſt cruel death from Crīſhna and Bala Rama, who cauſed him to be ſplit aſunder. Bala reſtored the ſon, Sahadéva, to his hereditary dominions; and from that time the kings of Maghadha, for twenty-four generations, reigned peaceably at Patna, until Nanda aſcended the throne, who, proving an active and enterpriſing prince, ſubdued the whole of Prachi: and having thus recovered the conqueſts, that had been wreſted from his anceſtor, probably re-eſtabliſhed the ſeat of empire at Bali-putra; the hiſtorians of Alexander poſitively aſſert, that he did. Thus while the kings of Palibothra, as Diodorus tells us, ſunk into oblivion, through their ſloth and inactivity, (a reproach which ſeems warranted by the utter ſilence obſerved of the poſterity of Bala Rama in the Puránas, not even their names being mentioned;) the princes of Patali-putra, by a contrary conduct, acquired a reputation that ſpread over all India: it was therefore natural for foreign authors, (for ſuch at leaſt Ananta was,) eſpecially in compoſitions of the dramatic kind, where the effect is oftentimes beſt produced by a neglect of hiſtorical preciſion, of two titles, to which their hero had an equal right to diſtinguiſh him by the moſt illuſtrious. The author of Sacontala has committed as great a miſtake in making Haſtinapoor the reſidence of Duſhmánta; which was not then in exiſtence, having been built by Haſti, the fifth in deſcent from Duſhmánta; before his time there was, indeed, a place of worſhip on the ſame ſpot, but no town. The ſame author has fallen into another error, in aſſigning a ſituation of this city not far from the river Malini, (he ſhould rather have ſaid the rivulet that takes its name from a village now called Malyani, to the weſtward of Lahore: it is joined by a new channel to the Ravy;) but this is a miſtake; Haſtinapoor lies on the banks of the old channel of the Ganges. The deſcendants of Peru reſided at Sangala, whoſe extenſive ruins are to be ſeen about fifty miles to the weſtward of Lahore, in a part of the country uninhabited. I will take occaſion to obſerve here, that

Arrian

Arrian has confounded Sangala with Salgada, or Salgana, or the miſtake has been made by his copyiſts. Frontinus and Polyænus have preſerved the true name of this place, now called Calanore; and cloſe to it is a deſerted village, to this day called Salghéda; its ſituation anſwers exactly to the deſcription given of it by Alexander's hiſtorians. The kings of Sangala are known in the Perſian hiſtory by the name of Schangal, one of them aſſiſted Afraſiab againſt the famous Caicoſru; but to return from this digreſſion to Patali-putra.

The true name of this famous place is Patali-pura, which means the town of Patali, a form of Devi worſhipped there. It was the reſidence of an adopted ſon of the goddeſs Patali, hence called Patali-putra, or the ſon of Patali. Patali-putra and Bali-putra are abſolutely inadmiſſible, as Sanſcrit names of towns and places; they are uſed in that ſenſe, only in the ſpoken dialects; and this of itſelf, is a proof, that the poems in queſtion are modern productions. Patali-pura, or the town of Patali, was called ſimply Patali, or corruptly Pattiali, on the invaſion of the Muſſulmans: it is mentioned under that name in Mr. Dow's tranſlation of Feriſhta's hiſtory. It is, I believe, the Patali of Pliny. From a paſſage in this author compared with others from Ptolemy, Marcianus, Heracleota, and Arrian in his Periplus, we learn that the merchants, who carried on the trade from the Gangetic Gulph, or Bay of Bengal, to Perimula, or Malacca, and to Bengal, took their departure from ſome place of rendezvous in the neighbourhood of Point Godavery, near the mouth of the Ganga Godavery. The ſhips uſed in this navigation, of a larger conſtruction than common, were called by the Greek and Arabian ſailors, colandrophonta, or in the Hinduſtani dialect, coilan-di-pota, coilan boats or ſhips: for pota in Sanſcrit, ſignifies a boat or a ſhip; and di or da, in the weſtern parts of India, is either an adjective form, or the mark of the genitive caſe. Pliny has preſerved to us the track of the merchants who traded to Bengal from Point Godavery.

They went to Cape Colinga, now Palmira; thence to Dandagula, now Tentugully, almoſt oppoſite to Fultati *; thence to Tropina, or Triveni and Trebeni, called Tripina by the Portugueſe, in the laſt century; and, laſtly, to Patale, called Patali, Patiali as late as the twelfth century, and now Patna. Pliny, who miſtook this Patale for another town of the ſame name, ſituate at the ſummit of the Delta of the Indus, where a form of Devi, under the appellation of Patali, is equally worſhipped to this day, candidly acknowledges, that he could by no means

* This is the only place in this eſſay not to be found in Rennell's Atlas.

reconcile the various accounts he had ſeen about Patale, and the other places mentioned before.

The account tranſmitted to us of Chandra-Gupta, by the hiſtorians of Alexander, agrees remarkably well with the abſtract I have given in this paper of the Mudra Rácſhaſa. By Athenæus, he is called Sandracoptos, by the others Sandracottos, and ſometimes Androcottos. He was alſo called Chundra ſimply; and, accordingly, Diodorus Siculus calls him Xandrames from Chandra, or Chandram in the accuſative caſe; for in the weſtern parts of India, the ſpoken dialects from the Sanſcrit do always affect that caſe. According to Plutarch, in his life of Alexander, Chandra-Gupta had been in that prince's camp, and had been heard to ſay afterwards, that Alexander would have found no difficulty in the conqueſt of Práchi, or the country of the Praſians had he attempted it, as the king was deſpiſed, and hated too, on account of his cruelty.

In the Mudra Rácſhaſa it is ſaid, that king Nanda, after a ſevere fit of illneſs, fell into a ſtate of imbecility, which betrayed itſelf in his diſcourſe and actions; and that his wicked miniſter, Sacatara, ruled with deſpotic ſway in his name. Diodorus Siculus and Curtius relate, that Chandram was of a low tribe, his father being a barber. That he and his father Nanda too, were of a low tribe, is declared in the Viſhun-purána and in the Bhágavat Chandram, as well as his brothers, was called Maurya from his mother Mura; and as that word * in Sanſcrit ſignifies a barber, it furniſhed occaſion to his enemies to aſperſe him as the ſpurious offspring of one. The Greek hiſtorians ſay, the king of the Prasū was aſſaſſinated by his wife's paramour, the mother of Chandra; and that the murderer got poſſeſſion of the ſovereign authority, under the ſpecious title of regent and guardian to his mother's children, but with a view to deſtroy them. The puránas and other Hindu books, agree in the ſame facts, except as to the amours of Sacatara with Mura, the mother of Chandra-Gupta, on which head they are ſilent. Diodorus and Curtius are miſtaken in ſaying, that Chandram reigned over the Prasū, at the time of Alexander's invaſion: he was contemporary with Seleucus Nicator.

I ſuſpect Chandra-Gupta kept his faith with the Greeks or Yavans no better than he had done with his ally, the king of Nepal; and this may be the motive

* See the Jutiviveca, where it is ſaid, the offspring of a barber, begot by ſtealth, of a female of the Sudra tribe, is called Maurya: the offspring of a barber and a ſlave woman is called Maurya.

for

for Seleucus croſſing the Indus at the head of a numerous army; but finding Sandro-coptos prepared, he thought it expedient to conclude a treaty with him, by which he yielded up the conqueſts he had made: and, to cement the alliance, gave him one of his daughters in marriage *. Chandra-Gupta appears to have agreed on his part to furniſh Seleucus annually with fifty elephants; for we read of Antiochus the Great going to India, to renew the alliance with king Sophagaſemus, and of his receiving fifty elephants from him. Sophagaſemus, I conceive, to be a corruption of Shivaca-Séna, the grandſon of Chandra-Gupta. In the puráńas this grandſon is called Aſecavard-dhana, or full of mercy, a word of nearly the ſame import as Aſéca-ſéna or Shivaca-ſéna; the latter ſignifying 'he whoſe armies are merciful do not ravage and plunder the country.'

The ſon of Chandra-Gupta is called Allitrochates and Amitrocates by the Greek hiſtorian. Seleucus ſent an ambaſſador to him: and after his death the ſame good intelligence was maintained by Antiochus the ſon or the grandſon of Seleucus. This ſon of Chandra-Gupta is called Variſára in the puránas; according to Paraſara, his name was Daſaratha; but neither the one nor the other bear any affinity to Amitrocates: this name appears, however, to be derived from the Sanſcrit Mitra-Gupta, which ſignifies ſaved by Mitra or the Sun, and therefore probably was only a ſurname.

It may be objected to the foregoing account, the improbability of a Hindu marrying the daughter of a Yavana, or, indeed, of any foreigner. On this difficulty I conſulted the Pundits of Benares, and they all gave me the ſame anſwer; namely, that in the time of Chandra-Gupta the Yavanas were much reſpected, and were even conſidered as a ſort of Hindus, though they afterwards brought upon themſelves the hatred of that nation by their cruelty, avarice, rapacity, and treachery in every tranſaction while they ruled over the weſtern parts of India; but that at any rate the objection did not apply to the caſe, as Chandra-Gupta himſelf was a Sudra, that is to ſay, of the loweſt claſs. In the Viſhnu-purána, and in the Bhagawat, it is recorded, that eight Grecian kings reigned over part of India. They are better known to us by the title of the Grecian kings of Bactriana. Arrian in his Periplus, enumerating the exports from Europe to India, ſets down as one article beautiful virgins, who were generally ſent to the market of Baroche. The Hindus acknowledged that, formerly, they were

* Strabo, B. 45, p. 724.

not

not ſo ſtrict as they are at this day; and this appears from their books to have been the caſe. Strabo does not poſitively ſay that Chandra-Gupta married a daughter of Seleucus, but that Seleucus cemented the alliance he had made with him by connubial affinity, from which expreſſion it might equally be inferred that Seleucus married a daughter of Chandra-Gupta; but this is not ſo likely as the other; and it is probable the daughter of Seleucus was an illegitimate child, born in Perſia after Alexander's conqueſt of that country.

Before I conclude, it is incumbent on me to account for the extraordinary difference between the line of the Surya Varſas or children of the ſun, from Ichſwacu to Daſaratha-Rama, as exhibited in the ſecond volume of the Aſiatick Reſearches, from the Viſhnu-purana and the Bhagawat, and that ſet down in the Table I have given with this Eſſay. The line of the Surya Varſas, from the Bhagawat being abſolutely irreconcileable with the anceſtry of Arjuna and Crĭſhna, I had at firſt rejected it, but, after a long ſearch, I found it in the Ramayen, ſuch as I have repreſented it in the table, where it perfectly agrees with the other genealogies. Daſaratha-Rama was contemporary with Paraſu Rama, who was, however, the eldeſt; and as the Ramayen is the hiſtory of Daſaratha-Rama, we may reaſonably ſuppoſe, his anceſtry was carefully ſet down and not wantonly abridged. I ſhall now conclude this Eſſay with the following remarks:

I. It has been aſſerted in the ſecond volume of the Aſiatick Reſearches, that Paraſara lived about 1180 years before Chriſt, in conſequence of an obſervation of the places of the colures. But Mr. Davis having conſidered this ſubject with the minuteſt attention, authorizes me to ſay, that this obſervation muſt have been made 1391 years before the Chriſtian æra. This is alſo confirmed by a paſſage from the Paraſara Sanhita, in which it is declared, that the Udáya or heliacal riſing of canopus, (when at the diſtance of thirteen degrees from the ſun, according to the Hindu aſtronomers,) happened in the time of Paraſara, on the 10th of Cartica; the difference now amounts to twenty-three days. Having communicated this paſſage to Mr. Davis, he informed me, that it coincided with the obſervation of the places of the colures in the time of Paraſara.

Another ſynchroniſm ſtill more intereſting, is that of the flood of Deucalion, which, according to the beſt chronologers, happened 1390 years before Chriſt. Deucalion is derived from Déo-Calyún or Déo-Caljún: the true Sanſcrit name is Déva-Cála-Yavana. The word Cála-Yavana is always pronounced in converſation, and in the vulgar dialects, Cá-lyún or Cálijún: literally it ſignifies the devouring

ing Yavana. He is repreſented in the puránas, as a moſt powerful prince, who lived in the weſtern parts of India, and generally reſided in the country of Camboja, now Gazni, the ancient name of which, is Saſni or Saſna. It is true, they never beſtow upon him the title of Déva; on the contrary, they call him an incarnate demon: becauſe he preſumed to oppoſe Crĭſhna; and was very near defeating his ambitious projects; indeed Crĭſhna was nearly overcome and ſubdued after ſeventeen bloody battles; and, according to the expreſs words of the puránas, he was forced to have recourſe to treachery: by which means Cályún was totally defeated in the eighteenth engagement. That his followers and deſcendants ſhould beſtow on him the title of Déva, or Deo, is very probable; and the numerous tribes of Hindus, who, to this day, call Crĭſhna, an impious wretch, a mercileſs tyrant, an implacable and moſt rancorous enemy. In ſhort, theſe Hindus, who conſider Crĭſhna as an incarnate demon, now expiating his crimes in the fiery dungeons of the loweſt hell, conſider Cályún in a very different light, and, certainly, would have no objection to his being called Deo-Cályún. Be it as it may, Deucalion was conſidered as a Déva or Deity in the weſt, and had altars erected to his honour.

The Greek mythologiſts are not agreed about him, nor the country in which the flood, that goes by his name, happened: ſome make him a Syrian; others ſay, that his flood happened in the countries, either round mount Etna, or mount Athos; the common opinion is, that it happened in the country adjacent to Parnaſus; whilſt others ſeem to intimate, that he was a native of India, when they aſſert that he was the ſon of Prometheus, who lived near Cabul, and whoſe cave was viſited by Alexander, and his Macedonians. It is called in the puránas Garnda-síhan, or the place of the Eagle, and is ſituated near the place called Shibi, in Major Rennell's map of the weſtern parts of India; indeed, Pramathaſi is better known in Sudia by the appellation of Sheba *. Deo-Cályún, who lived at Gazni, was obliged on the arrival of Crĭſhna, to fly to the adjacent mountains, according to the puránas; and the name of theſe mountains was formerly Parnaſa, from which the Greeks made Parnaſus; they are ſituated between Gazni and Peſhower. Crĭſhna, after the defeat of Cályún, deſolated his country with fire and ſword. This is called in Sanſcrit Pralaya; and may be effected by water, fire, famine, peſtilence, and war: but in the vulgar dialects, the word Pralaya,

* Bamian (in Sanſcrit Vamiyan) and Shibr lay to the N.W. of Cabul.

ſignifies

ſignifies only a flood or inundation. The legends relating to Deo-Cályún, Prometheus and his cave, will appear in the next diſſertation I ſhall have the honour to lay before the Society.

II. Megaſthenes was a native of Perſia, and enjoyed the confidence of Sibyrtius*, governor of Arachoſia, (now the country of Candahar and Gazni,) on the part of Seleucus. Sibyrtius ſent him frequently on the embaſſies to Sandrocuptos. When Seleucus invaded India, Megaſthenes enjoyed alſo the confidence of that monarch, who ſent him, in the character of ambaſſador, to the court of the king of Prachi. We may ſafely conclude, that Megaſthenes was a man of no ordinary abilities, and as he ſpent the greateſt part of his life in India, either at Candahar or in the more interior parts of it; and as, from his public character, he muſt have been daily converſing with the moſt diſtinguiſhed perſons in India, I conceive, that if the Hindus, of that day, had laid claim to ſo high an antiquity, as thoſe of the preſent, he certainly would have been acquainted with their pretenſions, as well as with thoſe of the Egyptians and Chaldeans; but, on the contrary, he was aſtoniſhed to find a ſingular conformity between the Hebrews and them in the notions about the beginning of things, that is to ſay, of ancient hiſtory. At the ſame time, I believe, that the Hindus, at that early period, and, perhaps, long before, had contrived various aſtronomical periods and cycles, though they had not then thought of framing a civil hiſtory, adapted to them. Aſtrology may have led them to ſuppoſe ſo important and momentous an event as the creation muſt have been connected with particular conjunctions of the heavenly bodies; nor have the learned in Europe been entirely free from ſuch notions. Having once laid down this poſition, they did not know where to ſtop; but the whole was conducted in a moſt clumſy manner, and their new chronology abounds with the moſt groſs abſurdities; of this, they themſelves are conſcious, for, though willing to give me general ideas of their chronology, they abſolutely forſook me, when they perceived my drift in a ſtricter inveſtigation of the ſubject.

The loſs of Megaſthenes' works is much to be lamented. From the few ſcattered fragments, preſerved by the ancients, we learn that the hiſtory of the Hindus did not go back above 5042 years. The MSS. differ; in ſome we read 6042 years; in others 5042 and three months, to the invaſion of India by Alexander. Megaſthenes certainly made very particular enquiries, ſince he noticed even the

* Arrian, B. 5. p. 203.

months.

months. Which is the true reading I cannot pretend to determine; however, I incline to believe, it is 5042, becauſe it agrees beſt with the number of years aſſigned by Albumazar, as cited by Mr. Bailly, from the creation to the flood. This famous aſtronomer, whom I mentioned before, had derived his ideas about the time of the creation and of the flood, from the learned Hindus he had conſulted; and he aſſigns 2226 years, between what the Hindus call the laſt renovation of the world, and the flood. This account from Megaſthenes and Albumazar, agrees remarkably well with the computation of the Septuagint. I have adopted that of the Samaritan Pentateuch, as more conformable to ſuch particulars as I have found in the puránas; I muſt confeſs, however, that ſome particular circumſtances, if admitted, ſeem to agree beſt with the computation of the Septuagint: beſides, it is very probable, that the Hindus, as well as ourſelves, had various computations of the times we are ſpeaking of.

Megaſthenes informs us alſo, that the Hindus had a liſt of kings, from Dionyſius to Sandrocuptos, to the number of 153. Perhaps, this is not to be underſtood of ſucceſſions in a direct line: if ſo, it agrees well enough with the preſent liſt of the deſcendants of Nauſha, or Deo-Nauſh. This is what they call the genealogies ſimply, or the great genealogy, and which they conſider as the baſis of their hiſtory. They reckon theſe ſucceſſions in this manner: from Nauſha to Crĭſhna, and collaterally from Nauſh to Paricſhita; and afterwards from Jaraſandha, who was contemporary with Crĭſhna. Accordingly the number of kings amounts to more than 153; but, as I wanted to give the full extent of the Hindu chronology, I have introduced eight or nine kings, which, in the opinion of ſeveral learned men, ſhould be omitted, particularly ſix, among the anceſtry of Crĭſhna.

Megaſthenes, according to Pliny and Arrian, ſeems to ſay, that 5042 years are to be reckoned between Dionyſius, or Deo-Nauſha, and Alexander, and that 153 kings reigned during that period; but, I believe, it is a miſtake of Pliny and Arrian; for 153 reigns, or even generations, could never give ſo many years.

Megaſthenes reckons alſo fifteen generations between Dionyſius and Hercules, by whom we are to underſtand, Crĭſhna and his brother Bala-Rama. To render this intelligible, we muſt conſider Nauſh in two different points of view: Nauſh was at firſt a mere mortal, but on mount Meru he became a Déva or God, hence called Déva-Nauſh or Deo-Nauſh, in the vulgar dialects. This happened about fifteen generations before Crĭſhna. It appears that like the ſpiritual rulers of

Tartary

Tartary and Tibet (which countries include the holy mountains of Meru), Deo-Nauſh, did not, properly ſpeaking, die, but his ſoul ſhifted its habitation, and got into a new body whenever the old one was worn out, either through age or ſickneſs. The names of three of the ſucceſſors of Nauſha have been preſerved by Arrian; they are Spartembas, Budyas, and Cradevas. The firſt ſeems derived from the Sanſcrit Prachinvau, generally pronounced Prachinbau, from which the Greeks made Spartembau in the accuſative caſe; the two others are indubitably Sanſcrit, though much diſtorted, but I ſuſpect them to be titles rather than proper names.

III. This would be a proper place to mention the poſterity of Noah or Satyavrata, under the names of Sharma or Shama (for both are uſed,) Charma and Jyapti. They are mentioned in five or ſix puránas, but no further particulars concerning them are related, beſides what is found in a former eſſay on Egypt. In the liſt of the thouſand names of Viſhnu, a ſort of Litany, which Bráhmens are obliged to repeat on certain days, Viſhnu is called Sharma, becauſe, according to the learned, Sharma or Shama, was an incarnation of that deity. In a liſt of the thouſand names of Siva, as extracted from the Padma-purána, the 371ſt name is Shama-Jaya, which is in the fourth caſe, anſwering to our dative, the word praiſe being underſtood: Praiſe to Sharmaja, or to him who was incarnated in the houſe of Sharma.

The 998th name is Sharma-putradáya, in the fourth caſe alſo, praiſe to him who gave offspring to Sharma. My learned friends here inform me, that it is declared in ſome of the puránas, that Sharma, having no children, applied to Siva, and made Tapaſya to his honour. *Iſwara* was ſo pleaſed, that he granted his requeſt, and condeſcended to be incarnated in the womb of Sharma's wife, and was born a ſon of Sharma, under the name of Baleſwara, or Iſwara the infant. Baleſwara, or ſimply Iſwara, we mentioned in a former eſſay on Semiramis; and he is obviouſly the Aſſur of Scripture.

In another liſt of the thouſand names of SIVA (for there are five or ſix of them extracted from ſo many puránas) we read, as one of his names, BALESA ISA or ISWA'RA the infant. In the ſame liſt SIVA is ſaid to be VARAHI-PALACA, or he who foſtered and cheriſhed VARAHI, the conſort of VISHNU, who was incarnated in the character of Sharma. From the above paſſages the learned here believe that SIVA, in a human ſhape, was legally appointed to raiſe ſeed to SHARMA during an illneſs thought incurable. In this ſenſe JAPHET certainly dwelt in the tents of SHEM. My chief pandit has repeatedly, and moſt poſitively, aſſured me, that the poſterity of SHARMA to the tenth or twelfth generation, is mentioned in ſome of the

the puránas. His ſearch after it has hitherto proved fruitleſs, but it is true, that we have been able to procure only a few ſections of ſome of the more ſcarce and valuable puránas. The field is immenſe, and the powers of a ſingle individual too limited.

V. The ancient ſtatues of the gods having been deſtroyed by the Muſſulmans, except a few which were concealed during the various perſecutions of theſe unmerciful zealots, others have been erected occaſionally, but they are generally repreſented in a modern dreſs. The ſtatue of Bala-Rama at Mutra has very little reſemblance to the Theban Hercules, and, of courſe, does not anſwer exactly to the deſcription of Megaſthenes. There is, however, a very ancient ſtatue of Bala-Rama at a place called Baladeva, or Baldeo in the vulgar dialects, which anſwers minutely to his deſcription. It was viſited ſome years ago by the late Lieutenant STEWART, and I ſhall deſcribe it in his own words: "Bala-Rama or Bala-deva is repreſented there with a ploughſhare in his left hand, with which he hooked his enemies, and in his right hand a thick cudgel, with which he cleft their ſculls; his ſhoulders are covered with the ſkin of a tiger. The village of Baldeo is thirteen miles E. by S. from Muttra."

Here I ſhall obſerve, that the ploughſhare is always repreſented very ſmall, ſometimes omitted; and that it looks exactly like a harpoon, with a ſtrong hook, or a gaff, as it is uſually called by fiſhermen. My pandits inform me alſo, that Bala-Rama is ſometimes repreſented with his ſhoulders covered with the ſkin of a lion.

XIX.

REMARKS ON THE NAMES OF THE CABIRIAN DEITIES, AND ON SOME WORDS USED IN THE MYSTERIES OF ELEUSIS.

By Captain FRANCIS WILFORD.

IN the Adhuta-coſa we find the following legends, which have an obvious relation to the Deities worſhipped in the myſteries of Samothrace.

In Patala (or the infernal regions) reſides the ſovereign queen of the Nagas (large ſnakes or dragons:) ſhe is beautiful, and her name is ASYORUCA. There, in a cave, ſhe performed Tapaſya with ſuch rigorous auſterity, that fire ſprang from her body, and formed numerous agni-tiraths (places of ſacred fire) in Patala. Theſe fires,

forcing their way through the earth, waters, and mountains, formed various openings or mouths, called from thence the flaming mouths, or juálá-muc'hi. By SAMUDR (OCEANUS) a daughter was born unto her called RAMA'-DE'VI. She is moſt beautiful; ſhe is LACSHMI; and her name is A'SYO'TCERSHA' or A'SYO'TCRISHTA. Like a jewel ſhe remains concealed in the ocean.

The DHARMA-RAJA, or King of Juſtice, has two countenances; one is mild and full of benevolence; thoſe alone who abound with virtue, ſee it. He holds a court of juſtice, where are many aſſiſtants, among whom are many juſt and pious kings. CHITRAGUPTA acts as chief ſecretary. Theſe holy men determine what is dharma and adharma, juſt and unjuſt. His (Dharma rajas) ſervant is called CARMALA: he brings the righteous on celeſtial cars, which go of themſelves, whenever holy men are to be brought in, according to the directions of the DHARMA-RAJA, who is the ſovereign of the Pitris. This is called his divine countenance, and the righteous alone do ſee it. His other countenance or form is called YAMA; this the wicked alone can ſee. It has large teeth, and a monſtrous body. Yama is the lord of Patala; there he orders ſome to be beaten, ſome to be cut to pieces, ſome to be devoured by monſters, &c. His ſervant is called CASHMALA, who, with ropes round their necks, drags the wicked over rugged paths, and throws them headlong into hell. He is unmerciful, and hard is his heart: every body trembles at the ſight of him. According to MNASEAS, as cited by the ſcholiaſt of Appollonius Rhodius, the names of the Cabirian Gods were AXIEROS, or CERES, or the EARTH; AXIOCERSA or PROSERPINE; AXIOCERSOS or PLUTO; to whom they add a fourth called CASMILLUS, the ſame with the infernal MERCURY.

AXIEROS is obviouſly derived from Aſyoruca, or rather from Aſyoru, or Aſyorus; for ſuch is the primitive form; which ſignifies literally, ſhe whoſe face is moſt beautiful.

AXIOCERSA is derived from Aſyotcerſa, a word of the ſame import with the former, and which was the ſacred name of PROSERPINE. This is obviouſly derived from the Sanſcrit Praſarparni, or ſhe who is ſurrounded by large ſnakes and dragons. Nonnus repreſents her as ſurrounded by two enormous ſnakes, who conſtantly watched over her. She was raviſhed by Jupiter in the ſhape of an enormous dragon. She was generally ſuppoſed to be his daughter; but the Arcadians, according to Pauſanius, inſiſted that ſhe was the daughter of Ceres and Neptune; with whom the ancient mythologiſts often confound Oceanus. As ſhe is declared, in the ſacred books of the Hindus, to be the ſame with Lacſhmi, her conſort of courſe is Viſhnu,

who

who rules, according to the puránas, in the weſt, and alſo during the greateſt part of the night. In this ſenſe Viſhnu is the Dis of the weſtern mythologiſts, the black Jupiter of Statius; for Viſhnu is repreſented of a black, or dark azure complexion: Pluto or Yama is but a form of Viſhnu. The titles of Dis or Ades appear to me to be derived from A'di or A'din, one of the names of Viſhnu. When Cicero ſays * Terrena autem vis omnes atque natura, DITI patri dedicata eſt; that is to ſay, That nature, and the powers or energy of the earth, are under the direction of Dis. This has no relation to the judge of departed ſouls, but ſolely belongs to Viſhnu.

AXIOCERSOS, or in Sanſcrit A's'yotcerſa, or A's'yotcerſas, was Pluto or Dis, and was meant for Viſhnu. Viſhnu is always repreſented as extremely beautiful; but I never found A's'yotcerſa among any of his titles: he is ſometimes called Atcerſa, a word of the ſame import.

CASHMALA' or CASHMALA's is obviouſly the Caſmilus of the weſtern mythologiſts. The appellation of Cabiri, as a title of theſe deities, is unknown to the Hindus; and, I believe, by the Cabirian gods, we are to underſtand the gods worſhipped by a nation, a tribe, or a ſociety of men called Cabires. The Cuveras or Cuberas, as it is generally pronounced, are a tribe of inferior deities, poſſeſſed of immenſe riches, and who are acquainted with all places under, or above ground, abounding with precious metals and gems. Their hiſtory in the puránas, begins with the firſt Menu, and no mention is made in it of floods, at leaſt my learned friends tell me ſo. They are repreſented with yellow eyes, like the Pingacſhas (of whom we ſpoke in a former eſſay on Egypt,) and perhaps may be the ſame people; certain it is the Pingacſhas worſhipped the Cabirian gods. Diodorus Sioulus ſays, that the invention of fire, and the working of mines, was attributed to them; and we find a Cabirus repreſented with a hammer in his hand.

At the concluſion of the myſteries of ELEUSIS, the congregation was diſmiſſed in theſe words: Κονξ, Ὀμ, Παξ; *Conx, Om, Pax.* Theſe myſterious words have been conſidered hitherto as inexplicable; but they are pure Sanſcrit, and uſed to this day by Bráhmens at the concluſion of religious rites. They are thus written in the language of the Gods, as the Hindus call the language of their ſacred books; Canſcha, Om, Pacſha.

CANSCHA ſignifies the object of our moſt ardent wiſhes.

OM is the famous monoſyllable uſed both at the beginning and concluſion of a prayer, or any religious rite, like Amen.

* Cic. De Natura Deorum.

PACSHA

PACSHA exactly anſwers to the obſolete Latin word Vix; it ſignifies change, courſe, ſtead, place, turn of work, duty, fortune. It is uſed particularly after pouring water in honour of the Gods and Pitris. It appears alſo from HESYCHIUS,

I. That theſe words were pronounced aloud at the concluſion of every momentous tranſaction, religious or civil.

II. That when Judges, after hearing a cauſe gave their ſuffrages, by dropping of pebbles of different colours into a box, the noiſe made by each pebble was called by one of theſe three words (if not by all three), but more probably, by the word Pacſha; as the turn, or pacſha of the voting judge, was over.

When lawyers pleaded in a court of juſtice, they were allowed to ſpeak two or three hours, according to the importance of the cauſe; and for this purpoſe, there was a Clepſydras, or water clock ready, which, making a certain noiſe at the end of the expired pacſha, vix, or turn, this noiſe was called Pacſha, &c.

The word Pacſha is pronounced Vacſh and vact in the vulgar dialects, and from it the obſolete Latin word vix is obviouſly derived. The Greek language has certainly borrowed largely from the Sanſcrit; but it always affects the ſpoken dialects of India; the language of the Latins in particular does, which is acknowledged to have been an ancient dialect of the Greek.

XX.

ACCOUNT OF THE PAGODA AT PERWUTTUM.

EXTRACT OF A JOURNAL BY CAPTAIN COLIN MACKENZIE,

Communicated by MAJOR KIRKPATRICK.

THE Pagoda of Perwuttum, hitherto unknown to Europeans, is ſituated near the ſouth bank of the Kiſtna, in a wild tract of country, almoſt uninhabited, except by the Chinſuars, about

Horizontal diſtance { 65 miles W. of Inawada in Guntoor.
63 miles E. N. E. of Canoul.
And ſuppoſed to be 103 miles S. and ½ E. of Hydrabad.

March

March 14th, 1794.—Having ſent notice to the manager of the revenues (the principal officers of the circar) that I was deſirous of ſeeing the Pagoda, provided there was no objection, I was informed at noon, that I might go in. The manager did not appear very deſirous of paying any of the common civilities, but the Bráhmens crowded round to conduct me into the place. On entering the ſouth gate, we deſcended by ſteps, and through a ſmall door, to the inner court, where the temples are: in the centre was the Pagoda of *Mallecarjee*, the principal deity worſhipped here. It is ſquare, and the roof is terminated by a pyramid of ſteps; the whole walls and roof on the outſide, are covered with braſs plates, which have been gilt, but the gilding is now worn off. Theſe plates are joined together by ſmall bars and ſockets, ſo that the whole may be taken off without damage; the ſpire or pyramid is not above thirty feet from the ground; the plates are plain, excepting a few emboſſed figures of women, ſome ſmall ornaments, and on the friezes of the doors, the pannels of which are alſo plated. A ſtatue with three legs is placed over each of the three entries; to ſupport this uncommon figure, a poſt is carried up, which, at firſt ſight, gives it the appearance of being empaled. On the weſt ſide of the pagoda inſcriptions are engraved very neatly on three ſheets of braſs plates. Oppoſite to the ſouth ſide, on a neat baſement and pedeſtal ornamented with brazen figures of cows, is a ſlender pillar about twenty-four or thirty feet high, entirely compoſed of braſs plates; it is bent; and from the joints, which plainly appear in the plating, it ſeems to be laid on a bamboo encloſed within. The four ſides of the pedeſtal are covered with inſcriptions, two in Gentoo or Tellinga, one in Grindam, and one in Naggerim: the firſt ſeven lines of the latter, in large well defined characters, I copied; five ſmaller lines followed, which I could not copy ſo exactly, the character being ſmall, and the pedeſtal highly elevated. Some characters are alſo engraved on the fillet and ornamental parts of the moulding. From hence I was conducted to the ſmaller and more ancient temple of MALLECARJEE, where he is adored in the figure of a rude ſtone, which I could juſt diſtinguiſh through the dark viſta of the front building on pillars. Behind this building an immenſe fig-tree covers with its ſhade the devotees and attendants, who repoſe on ſeats placed round its trunk and carpeted. Among theſe was one *Byraggy* who had devoted himſelf to a perpetual reſidence here; his ſole ſubſiſtence was the milk of a cow, which I ſaw him driving before him; an orange coloured rag was tied round his loins, and his naked body was beſmeared with aſhes.

Some

Some of the Brahmens came in the evening, with a copy of the inſcriptions on two of the braſs plates: they profeſſed not to know exactly the meaning of them, being, they ſaid, *Sanſcrittum Jigum.* The ſame ignorance of the language of their religious books, ſeems to prevail through all theſe countries. The Brahmens in attendance here, are relieved at ſtated times, from Autcowr and other places, as this place is unwholeſome and the water bad. One of them ſaid, he had books at Autcowr explanatory of the hiſtory of the Pagoda, and of the figures carved on the walls. Though they had never heard that any European had been here before, they did not expreſs any ſurpriſe at this viſit. Some of them applied for medical aid, but no fever prevailed among them at that time.

During the troubles of *Sevi-row*, the Chinſuars occupied the Pagoda, who ſtripped it of ſome ornaments and damaged it. Since *Sevi-row* had ſubmitted, the revenues derived from the reſort of pilgrims, are collected for the *canoul circar* by a manager or aumildar, who reſides within the encloſure, as do the ſebundies and peons, ſtationed here to protect the pilgrims, who come from all parts at certain ſtated feſtivals.

The red colour that predominates in the rock of this country, (which is a granite), is very remarkable. The ſuperſtratum, which, in many places, forms the naked ſuperfices of the ſoil, is of a black colour, and from the ſmooth ſhining ſurface it frequently exhibits, appears to have been formerly in a ſtate of fuſion, but goes to no great depth; the next ſtratum is compoſed of grains of a reddiſh colour, mixed with others of a white ſhining quartz, in greater proportion and of a larger ſize, ſo as to give the ſtone, when quarried, a greyiſh colour, which is more obſervable after it has been cut or chiſſeled. Iron is found in ſeveral parts of this mountainous tract, and ſo are diamonds, but the labour is ſo great, and the chance of meeting with the veins ſo very uncertain, that the digging for them has been long diſcontinued: the following places were mentioned as producing them, viz.

1. *Saringamutta* near *Jatta Reow*, on the other ſide the *Kiſtna*, where the ferry and road to *Amirabad* croſſes. N. B. A Pagoda here.
2. *Routa Pungala*, two parous diſtant, near *Pateloh Gunga*.
3. *Goſſah Reow*, twelve parous down the river. N. B. a ferry or ford there. After the heavy rains, when the rivers fall, they are found ſometimes in the beds. This place is near the ruins of *Chundra-goompty-putnam*, formerly a great town on its north bank, and now belonging to *Amraritty*.

The

The weather being warm, I was deſirous of getting over as much of this bad road as I could before noon: my tents and baggage had been ſent off at four, A. M. and I only remained at the Pagoda, with the intention of making ſome remarks on the ſculptures of its wall as ſoon as day light appeared. But the Bráhmens with the *Rajpoot amuldar* (who had hitherto ſhewn a ſhyneſs that I had not experienced in any other parts of the journey,) came to requeſt, that, as I was the firſt European, who had ever came ſo far, to viſit *Mallecarjee*, and had been prevented from ſeeing the object of their worſhip, by yeſterday not being a lucky day, I would remain with them that day, aſſuring me, that the doors would be opened at ten o'clock, I agreed to wait till that hour, being particularly deſirous of ſeeing by what means the light was reflected into the temple, which the unſkilfulneſs of my interpreter could not explain intelligibly to my comprehenſion. Notice being at laſt given, at about half paſt eight, that the ſun was high enough, the doors on the eaſt ſide the gilt Pagoda were thrown open, and a mirror, or reflecting ſpeculum, was brought from the *Rajpoot amuldar's* houſe. It was round, about two feet in diameter, and fixed to a braſs handle, ornamented with figures of cows; the poliſhed ſide was convex, but ſo foul that it could not reflect the ſun beams; another was therefore brought, rather ſmaller and concave, ſurrounded by a narrow rim and without a handle. Directly oppoſite to the gate of the Pagoda is a ſtone building, raiſed on pillars, encloſing a well, and ending in a point; and being at the diſtance of twelve or fourteen feet, darkens the gateway by its ſhadow, until the ſun riſes above it; this, no doubt, has been contrived on purpoſe to raiſe the expectation of the people, and by rendering the ſight of the idol more rare, to favour the impoſition of the Bráhmens. The moment being come, I was permitted to ſtand on the ſteps in front of the threſhold without, (having put off my ſhoes, to pleaſe the directors of the ceremony, though it would not have been inſiſted on,) while a crowd ſurrounded me, impatient to obtain a glimpſe of the aweful figure within. A boy, being placed near the door-way, waved and played the concave mirror, in ſuch a manner, as to throw gleams of light into the Pagoda, in the deepeſt receſs whereof was diſcovered, by means of theſe coruſcations, a ſmall, oblong, roundiſh white ſtone, with dark rings, fixed in a ſilver caſe. I was permitted to go no farther, but my curioſity was now ſufficiently ſatisfied. It appears, that this god *Mallicarjee* is no other than the *Lingam*, to which ſuch reverence is paid by certain caſts of the Gentoos; and the reaſon why he is here repreſented by ſtones unwrought, may be underſtood from the Bráhmens' account of the origin of this

place

place of worſhip. My interpreter had been admitted the day before into the *ſanctum ſanctorum*, and allowed to touch the ſtone, which he ſays is ſmooth, and ſhining, and that the dark rings or ſtreaks are painted on it; probably it is an agate, or ſome other ſtone of a ſilicious kind, found near ſome parts of the Kiſhna, and of an uncommon ſize. The ſpeculums were of a whitiſh metal, probably a mixture of tin and braſs.

Theſe arts, deſigned to impoſe on the credulity of the ignorant ſuperſtitious crowd, ſeem to have been cultivated ſucceſsfully here, and the difficulties attending the journey, with the wild gloomy appearance of the country, no doubt, add to the aweful impreſſion made on their minds.

The Bráhmens having given me the following account of the origin of the Pagoda, I inſert it here, as it may lead to farther enquiry, and by a compariſon with other accounts, however diſguiſed by fable or art, ſome light may be thrown on the hiſtory and manners of a people ſo very intereſting.

"At Chundra-gumpty-pathum, twelve parous down the river on the north "ſide, formerly ruled a Raja of great power, who, being abſent ſeveral years from "his houſe, in conſequence of his important purſuits abroad, on his return fell in "love with his own daughter, who had grown up during his long abſence. In "vain the mother repreſented the impiety of his paſſion; proceeding to force, his "daughter fled to theſe deſerts of Perwuttum, firſt uttering curſes and impreca-"tions againſt her father; in conſequence of which, his power and wealth de-"clined; his city, now a deſerted ruin, remains a monument of divine wrath; "and himſelf, ſtruck by the vengeance of Heaven, lies deep beneath the waters "of Puttela-gunga, which are tinged green by the ſtring of emeralds that adorned "his neck." Here is a fine ſubject for a fable; it may, however, furniſh a clue to hiſtory, as the ruins of this once opulent city are ſtill ſaid to exiſt. This account of the origin of the devotion here, bears a great reſemblance to that of the pilgrimage to Monſerrat in Catalonia, mentioned in *Baretti's* Travels.

"The princeſs was called *Mallica-davi*, and lived in this wilderneſs. Among "her cattle was a remarkably fine black cow, which ſhe complained to her herdſ-"men, never gave her milk. He watched behind the trees, and ſaw the cow "daily milked by an unknown perſon. *Malica-Divi* informed of this, placed her-"ſelf in a convenient ſituation, and beholding the ſame unknown perſon milking "the cow, ran to ſtrike him with an iron rod or mace, which ſhe held in her "hand; but the figure ſuddenly diſappeared, and to her aſtoniſhment, nothing

"remained

" remained but a rude ſhapeleſs ſtone. At night the god appeared to her in a " dream, and informed her, he was the perſon that milked the cow; ſhe, there- " fore, on this ſpot, built the firſt temple that was conſecrated to the worſhip of " this deity repreſented by a rude ſtone." This is the ſecond temple that was ſhewn yeſterday, where he is exhibited in the rude ſtate of the firſt diſcovery, and is called *Mudi-Mulla-Carjee* or *Mallecarjee*; the other temples were afterwards built in later times, by Rajas and other opulent perſons. The lingam, ſhewn by reflected light in the gilded temple, has alſo its hiſtory and ſtories, ſtill more abſurd and wonderful, attached to it. It was brought from the (now deſerted) city of Chundra-goompty-patnam. The princeſs, now worſhipped as a goddeſs, is alſo called *Brama-Rumbo*, or *Strichillum-Rumbo*, from whence this Pagoda is called *Strichillum*. She delights peculiarly in Perwuttum, but is called by eighteen other names.

It may be proper here, to take notice of the carvings on the outer walls, as they are remarkable for their number, and contain leſs of thoſe monſtrous figures than other buildings of this kind. It would appear that the ſtories repreſented on ſeveral diviſions, or compartments, are deſigned to impreſs on the mind ſome moral leſſon, or to heighten the reverence inculcated for the object of adoration here. The cuſtoms and manners of the Gentoos; their arms, dreſs, amuſements, and the parade and ſtate attendant on their ſovereigns, in former times, might be elucidated by a minute inſpection of the figures repreſented on the walls; drawings of which, and tranſlations of, or extracts from, any books or inſcriptions that might be found, having relation to them, would be uſeful to that end.

The ſeveral Pagodas, Choultries, and Courts, are encloſed by a wall 660 feet long and 510 feet broad. In the centre of this encloſure are the more ancient buildings already deſcribed. Below the level of the principal gate, a road or avenue, twenty-four feet broad, goes parallel without to this wall, from whence is a deſcent by ſteps to gardens on the north ſide; from the eaſt gate a double colonade runs, 120 yards, forming a ſtreet; an oblong tank is on the weſt ſide, from which water was conducted to reſervoirs in the gardens, but theſe are now entirely neglected; the town or pettah covered the ſouth ſide, and the S. E. angle; the form of the incloſure is an oblong ſquare, with one ſquare projection to the weſt. The great gateways are, as uſual, ſupported by ſtone pillars, leaving apartments for the guard on each ſide the entrance: they are covered with ſpires of brick work; and

this, with the pillar between, being retired ſome feet within the line of walls, ſhews that they are of more modern conſtruction, though the ſpires are rather ruinous: and it may be proper to remark, that theſe brick ſpires, formed of ſeveral ſtories with ſmall pilaſters, of no regular order, and the niches ornamented with figures in plaiſter, ſeem to be the lateſt invention uſed in the Pagodas; thoſe with pyramidal roofs, ſtep-faſhion, and the ſummit crowned, ſometimes by a globe, are more ancient and of ſeveral ſizes, ſo low as four feet in height; built of ſtone, and ſeem to be the firſt improvement on the early rude temples of rough ſtones ſet up on end to cover the image of the god. Theſe firſt attempts are frequently ſeen among the hills. The wall of the incloſure is built of hewn blocks of the greyiſh ſtone, from ſix to ſeven feet long by three high, exactly ſquared and laid together, and about eight or nine rows of theſe, from the level of the interior pavement, leaves its height, from twenty-four varied to twenty-ſeven feet; the whole of the wall on the outſide (being 2,100 feet by twenty-four, allowing 240 for the opening of the gates and ſquare projection on the weſt ſide) is covered with carvings and figures ſculptured out of the block. Every ſingle block has a rim, or border, raiſed round it, within which, the carving is raiſed on a level with the rim, deſigned evidently, to protect the figures from injury, while raiſed upon the wall.

The firſt and loweſt row of theſe ſtones is covered with figures of elephants, harneſſed in different ways, as if led in proceſſion, many of them twiſting up trees with their trunks. 2nd.—The ſecond row is chiefly occupied with equeſtrian ſubjects; horſes led ready ſaddled and their manes ornamented, others tied up to pillars, ſome looſe; a great many horſemen are repreſented, engaged in fight, at full gallop, and armed with pikes, ſwords, and ſhields; others are ſeen hunting the tyger, and running them through with long ſpears. The riders are repreſented very ſmall in proportion to the horſes, probably to diſtinguiſh the ſize of the latter, as a ſmaller caſt ſeems intended to be repreſented among the led horſes, where a few are ſeen lower in ſize, ſomething reſembling the Acheen breed of horſes. All theſe figures are very accurately deſigned. It is remarkable, that ſeveral figures are repreſented galloping off as in flight, and at the ſame time drawing the bow at full ſtretch; theſe Parthian figures ſeem to have entirely dropped the bridle, both hands being occupied by the bow; ſome of them are ſeen advancing at full ſpeed, and drawing the bow at the ſame time. This mode appears to have been practiſed by the Indians, as it is highly probable, that the arts of common

life

life only, are here repreſented in the lower row. 3d.—On the third row, a variety of figures are repreſented, many of them hunting pieces; tygers (and in one place a lion) attacked by ſeveral perſons; crowds of people appear on foot, many armed with bows and arrows, like the Chinſuars; many figures of Byrraggies or Jogies are ſeen diſtinguiſhed by large turbans, carrying their ſticks, pots, and bundles, as if coming from a journey; ſome leaning on a ſtick as if tired, or decrepid from age; others approaching with a mien of reſpect and adoration.—The fourth, fifth, ſixth, and ſeventh rows, are filled (as it would appear from the ſcanty information I was able to obtain) with repreſentations of ſeveral events regarding the deities of the place, or expreſſive allegories of the moral and religious dogmas of the Bráhmens: and probably ſome may record particular events of real hiſtory.—The eighth has fewer carvings than the reſt, ſome ſtones are occupied by a ſingle flower of large ſize, perhaps intended for the ſacred flower *(lotos)*: and ſome, though but a few, by the figure of a god.—The ninth, or upper row, is cut into openings, in the manner of battlements, and the ſtones, between each of theſe apertures, are alternately ſculptured with the figures of the Lingam, and a cow ſhaded by an umbrella, to ſignify its pre-eminence.

To examine the particular groups repreſented, would have taken up much more time than I could ſpare, but I particularly noticed the following: 1ſt, a figure with five heads, weighing two figures in a balance; one of them appears to have a little out-balanced the other. From what I could underſtand from the Bráhmens, this was meant for BRA'HMA weighing *Viſhnu* and *Siva*, or *Sulramick*; the latter is heavieſt. This alludes to the different ſects, or followers of *Viſhnu* and *Siva*. Another figure alſo repreſented two perſons weighed in a balance, both equal, but the explanation of this I could not learn.

Second. Several people pulling at the head and tail of a great ſnake, which is twiſted round a *Lingam*. This I had ſeen carved on the walls of the pagoda of *Wentigmetta*, near *Sidaut*, in September 1792.

Third. Elephants treading a man under foot.

Fourth. A naked figure of a woman approaching the *Lingam*: in her left hand ſhe holds the ſmall pot uſed for ablution; in her right a ſtring of beads *(Ingam valu)*: a hand appears iſſuing from the *Lingam*.

The *Bráhmens* explained the meaning of this ſculpture, "ACUMA DEVI naked, "approaching to worſhip the *Lingam* a hand appears ſuddenly from it, waving,

"and

" and a voice is heard, forbidding her to approach in that indecent ſituation." A maxim of decency, in the height of religious zeal is here inculcated.

Fifth. The ſtory of MALLECARJEE and the ſacred cow (the origin of the pagoda) is repreſented in two different places. The cow appears with its udder diſtended over the *Lingam*, which differs from the account of the *Bráhmens* in not being repreſented as a rough ſtone; a perſon near a tree is ſeen, as if looking on; a kind of diviſion ſeems to ſeparate theſe figures from a woman, in a ſitting poſture, with an umbrella held over her, to denote ſuperior rank; on the right, behind a tree, is a figure very indiſtinct, probably intended to repreſent the herdſman: the trees are badly executed.

Sixth. Among the number of animals in the proceſſion on the ſecond and third row, two camels are repreſented with a perſon on each, beating the *nagra*, or great drum.

Seventh. In one compartment the figure of an alligator, or crocodile, with its ſcales and monſtrous teeth is ſeen, running open mouthed, to devour a perſon lying before it; two women are ſtanding near a third ſeated; they are looking on a child near them. I got no explanation of this.

Eighth. An elephant and tyger fighting.

The ſculptures on the ſouth and eaſt ſides are in good preſervation; thoſe on the weſt and north are more injured by the weather. The age of the firſt temple might perhaps be diſcovered from the inſcriptions, if a tranſlation of them could be obtained. I could gain no information on this head; but I ſuſpect the building to be of higher antiquity than the knowledge, or, at leaſt, than the uſe of gunpowder among theſe people; becauſe among ſo great a variety of arms as are ſculptured upon the walls, ſwords, bows, pikes, arrows, and ſhields of a round figure, the matchlock is not to be found, though a weapon ſo much in uſe among the *poligars*. On enquiring of the *Bráhmens* the meaning of theſe carvings, one of them replied, " it was to ſhew how the Gods lived above;" but indeed they ſeem to have loſt all traces of any knowledge they may have formerly poſſeſſed, and to be ſunk into the profoundeſt ſtate of ignorance.

XXI.

REMARKS ON THE PRINCIPAL ÆRAS AND DATES OF THE ANCIENT HINDUS.

By Mr. JOHN BENTLEY.

THE confuſion and darkneſs that pervade and overſpread the Hindu chronology, I am inclined to think, proceed from two different cauſes: the one, owing to the fancy of their Bráhmens and poets, in diſguiſing and embelliſhing their hiſtory with allegory and fiction; the other, to the ignorance of the modern Hindus, who, not able to diſcern the difference between the ſeveral æras and modes of dating, which were made uſe of by their ancient hiſtorians, Bráhmens, and poets, in recording paſt events, have blended the whole together, into one maſs of abſurdity and contradiction.

At this day, it is not eaſy to diſcover the meaning of all the different modes of dating formerly in uſe. It appears, however, from hiſtorical facts, that they were moſtly, if not all, nominally the ſame, but eſſentially different in other reſpects:—they all went under the appellation of yugs, divine ages, Manwantaras, &c. but the yugs, divine ages, Manwantaras, &c. of the aſtronomers were different in point of duration from thoſe of the Bráhmens and poets, and thoſe of the Bráhmens and poets were, in like manner, different from thoſe of others: hence it becomes abſolutely neceſſary that we know the difference between each, that is, the aſtronomic, the poetic, &c. &c. from each other before we can attempt to analyze the Hindu chronology on true principles. It is from this mode alone that we can diſcern truth though diſguiſed by fiction; and, until the gordian knot, made faſt by the hand of modern times, be untied, much will remain in obſcurity.

The aſtronomic yugs, divine ages, &c. are the only periods in which the real number of years meant, are not concealed: it may not therefore be improper before I proceed farther to ſtate what theſe periods are, and their duration.

The Calpa is the greateſt of all the aſtronomical periods, and the duration of it is 4320000000 years. This period is compoſed, or made up, of the leſſer yugs, &c. in the following manner.

Four Yugs, viz. a Satya, a Treta, a Dwapar, and a Caliyug, make one divine age

or

or Maha yug; 71 Maha yugs with a Sandhi, equal to a Satya yug, make 1 Manwantara; and 14 Manwantaras compose a Calpa, at the commencement of which there is alſo a Sendhi, equal to a Satya yug. The duration of each period is as follows:

Sandhi at the beginning of the Calpa		1728000
Satya yug	728000	
Treta yug	1296000	
Dwapar yug	864000	
Cali yug	432000	
One divine age or Maha yug	4320000	
71 Maha yugs	306720000	
Add a Sandhi	1728000	
A Manwantara	308448000	
14 Manwantaras		4318272000
A Calpa, or a grand period		4320000000

The Calpa is an anomaliſtic period, at the end of which the Hindu aſtronomers ſay that the places of the planets' nodes and apſides will be preciſely the ſame as at the beginning of it; and the commencement of it was when the ſun, moon, and all the planets, nodes, and apſides, were in a line of conjunction, in the beginning of Aries, or 1955,884,897 years ago: therefore ſix Manwantaras, 23 Maha yugs of the ſeventh Manwantara, and as far as the 220897th year of the Cali yug, of the twenty-fourth Maha yug, are now (A°1796) expired of the Calpa. The ancient aſtronomers, moſt probably, for the ſake of convenience, made the preſent Cali yug of the Hindus, of which there are now 4897 years expired, to commence when juſt the firſt half, or 216000 years were elapſed of the above mentioned Cali yug, of the twenty-fourth Maha yug; and we are now only in the 4898th year of the ſecond half of that period. I ſhall therefore, by way of diſtinction, call the preſent Cali yug the "Aſtronomic Æra."

The Brahmens and poets, in imitation of the aſtronomic periods above given, invented others for their hiſtory and poetry. Theſe I ſhall diſtinguiſh by the name

of

of "Poetic Ages," or æras, becauſe they are embelliſhed by fiction, and covered over with a myſterious veil: *nominally*, they appear the ſame as the aſtronomic periods, but hiſtorical facts prove them to be eſſentially different in point of duration; one aſtronomic year being equal to 1000 poetic ones; hence,

	Years.	*Real Years.*
A Poetic Satya yug	of 1728000	is only 1728
Treta yug	of 1296000	1296
Dwapar yug	of 864000	864
Cali yug	of 432000	432

The firſt of theſe Poetic Ages, or Satya yug, commenced at the creation, and the reſt in ſucceſſion, agreeable to the following ſhort chronological table, continued down to the preſent time.

CHRONO-

CHRONOLOGICAL TABLE OF ANCIENT ÆRAS, &c.

	Poetical Æras.		*Year of the World.*		*Aſtonomic Æra.*	
Satya Yug, or Golden Age.		0	Adam	0	Cali yug *	0
		1		1		1
		130	Seth born	130		151
		905		905		751
		906		906		823
		1056	Noah born	1056		824
		1656	Flood	1656		882
		1728		1728	Pradyota	1000
Treta Yug, or Silver Age.		1		1729	Budha I.	1002
		59		1787		1043
		177	Nimrod	1905		1101
	Icſchwachu &Budhu	179		1907	Siſunga	1139
		220	Abraham	1948	Nanda	1499
		278	Noah's death	2006	Chandra-Gupta	1599
		316		2044	Puſhpamitra	1736
		676		2404	Vaſudeva	1848
		776		2504		1853
		913		2641		1920
		1025		2753		1920
	Rama	1030		2758		1925
		1097	Paraſara	2825		1930
		1097	Yudhiſthir	2825		2075
	Valmic	1102	Vyaſa	2830		2119
		1107	Paricſhit	2835		
		1152		2980		
		1296		3024		
Dwapar Yug, or Brazen Age.	Cuſha	1		3025		2120
		74		3098	Balin	2193
		530		3554	Chandrabija	2649
		576		3600		2695
		676		3700		2795
		776		3800		2895
		864		3888		2983

* The Cali yug commenced in February, in the 906th year of the world.

CHRONO-

CHRONOLOGICAL TABLE OF ANCIENT ÆRAS, &c. continued.

	Poetical Æras.	*Year of the World.*	*Aſtronomic Æra.*
Cali Yug, or Iron Age.	1	3889	2984
	62	3950	Vicramaditya 3045
	95	3983	Devapala 3078
	119	Chriſt 4007	3102
	185	4073	Narayanpala 3168
	197	4085	Saca 3180
	200	4088	3183
	300	4188	3283
	432	4320	3415
Satya Yug, or the Ild divine Age.	1	4321	3416
	185	4505	Varaha 3600
	200	4520	3615
	300	4624	3715
	400	4720	3815
	600	4920	4015
	800	5120	4215
	1000	5320	4415
	1200	5520	4615
	Current year 1483	Current year 5803	Current year 4898

In the preceding table, I have placed the beginning of the aſtronomic æra of the Cali yug, of which 4897 years were expired in April laſt, in the 906th year of the world; at which time 905 years were elapſed of the Satya yug of the Poets, reckoning from its commencement at the creation: hence it is ſelf-evident that the notion of the modern Hindus, who have confounded the fabulous or fictitious ages of their Poets with the aſtronomic periods merely from a ſimilarity of names, are not only erroneous, but even quite oppoſite to the true intent and meaning of the ancient Hindu writers themſelves; who, it may be proved, have ſometimes adopted the aſtronomic æra of the Cali yug, during the periods of the Treta and Dwapar yugs of the Poets, and made uſe of either æra, (aſtronomic or poetic, and ſometimes both), according as it ſuited their fancy, for recording not only paſt events in general, but even one and the ſame event.

The firſt inſtance I ſhall mention by way of proof is that of BUDHA, the ancient MERCURY of the Hindus. The late Sir WILLIAM JONES, whoſe name can never be mentioned but with the higheſt eſteem, places the ancient BUDHA, or MERCURY, who married ILA a daughter of NOAH, about the beginning of the Treta yug; contemporary with JISC'HWACU the ſon of NOAH. Now the Hindus in general, and the Bhagawatamrita in particular, ſay that "BUDHA became viſible the 1002d year of the Cali yug" (aſtronomic æra): let us therefore examine this matter a little, and ſee whether this is not the ſame BUDHA who is recorded as living near the beginning of the Treta yug of the Poets; contemporary with the ſon of NOAH. Firſt the 1002d year of the Cali yug was the 1907th from the Creation. Secondly, NOAH by the Moſaick account, did not die before the 2006th year from the Creation, or about 100 years after the appearance of BUDHA. Thirdly, and laſtly, there was but one BUDHA in the time of NOAH; and he is ſaid to have married ILA, the daughter of NOAH: hence we may ſafely infer, that the BUDHA, who appeared in the 1002d year of the Cali yug, or 1907 of the Creation, was the very ſame that married Noah's daughter, and is recorded as living near the beginning of the Treta yug of the Poets. Here we may plainly ſee, that the events, as well as the time, perfectly coincide; for the 1002d year of the Cali yug correſponds not only with the latter days of NOAH, but alſo with the 179th year of the Treta yug of the poets, as may be ſeen from the preceding table.

I ſhall now mention another inſtance, which, while it confirms what I have above ſaid, reſpecting the ancient Hindu writers or hiſtorians, adopting the aſtronomic æra of the Cali yug, at different times during the periods of the Treta and Dwapar yugs of the Poets, will at the ſame time explain the cauſe of all the confuſion and abſurdities which at preſent appear in the ancient hiſtory and chronology of the Hindus.

VALMIC and VYASA were two ancient contemporary bards, whom the modern Hindus ſeparate by no leſs a period than 864000 years, believing VALMIC to have lived near the cloſe of the Treta yug, and VYASA near the cloſe of the Dwapar yug: and though they cannot but admit that the two bards had frequently converſed together on the ſubject of their poems, yet they will rather account for it by ſuppoſing a miracle, than aſſign any real or probable cauſe for an abſurdity, ſo contradictory, not only to nature, but to common ſenſe.

VYASA was the ſon of PARASARA, an ancient aſtronomer, and PARASARA was

was the grandſon of VASISHTA, who was alſo an aſtronomer, and piaboita or family prieſt to RAMA, king of Audhya or Oud, who reigned, according to the Hindu accounts, near the cloſe of the Treta yug of the Poets. PARASARA, the father of VYASA, was therefore about one or two generations after RAMA. But, from the obſerved places of the equinoxes and ſolſtices in the year 3600 of the preſent Cali yug, by one VARAHA, an aſtronomer, and their places as mentioned by PARASARA, it would appear, that the obſervations of the latter muſt have been about 1680 years before VARAHA; which will therefore place PARASARA about the year 2825 of the world, correſponding to the 1097th of the Treta yug of the Poets; and as PARASARA may have been then between thirty and forty years old, we may place RAMA about the year 1030; and VALMIC and VYASA about the year 1102 of the Treta yug of the Poets, being the 2830th of the Creation. Theſe years may not be the exact times in which they reſpectively lived; but, I believe, they do not vary from the truth above forty or fifty years either way, and nearer than this we cannot well expect to bring them.

By having thus obtained the reſpective times or years in which RAMA, PARASARA, VYASA, and VALMIC lived, we have aſcertained a point of the utmoſt importance to the chronology of the Hindus.

The war of MAHABARAT took place in the time of VYASA, in conſequence of which he wrote his epic poem called the Mahabarat, and on the compoſition of which he conſulted VALMIC. VYASA was therefore contemporary with CRISHNA, ARJUN, ABHIMARIYIR, YUDHISHTHIR, PARICSHIT, and others engaged in that famous war.

Shortly after that war, and towards the cloſe of the reign of PARICSHIT, the Hindu hiſtorians of that part of India, where PARICSHIT reigned, began to lay aſide the Poetic æras altogether, and to adopt the aſtronomic æra of the Cali yug, of which near 2000 years were then expired.

This circumſtance of laying aſide the poetic æras, and adopting the aſtronomic, it ſeems in the courſe of ten or twelve centuries after became either totally forgotten, or miſunderſtood, ſo much ſo in fact that the very adoption of the aſtronomic æra has been taken, by the modern Hindus, for the actual beginning of the Cali yug itſelf. This erroneous notion, together with thoſe which they entertained reſpecting the duration of the different ages, the Satya, Treta, and Dwapar yugs of their poets, which they firmly believe to be the ſame with the aſtronomic periods of the ſame name, and to have ended accordingly before the preſent Cali

yug

yug commenced, has been the cauſe of all the confuſion which appears in their ancient hiſtory and chronology. For finding the immediate ſucceſſor of PARICSHIT mentioned in ancient hiſtory as reigning in the Cali yug, they concluded, though erroneouſly, that PARICSHIT muſt therefore have reigned at the cloſe of the Dwapar yug; and from this circumſtance, having removed PARICSHIT from the cloſe of the Treta yug down to the cloſe of the Dwapar yug, they were then obliged to place YUDHISHTHIR, ARJUN, CRISHNA, HABIMANYU, and VYASA, at the cloſe of the Dwaper yug alſo; by which means they ſeparate VYASA, from VALMIC his contemporary and friend, and the reſt who were engaged in the war of BHARAT, from their proper places in hiſtory, by 864000 years of the poets.

It is owing to the ſame erroneous notions reſpecting the Cali yug, that the modern Hindus have thrown the ancient hiſtory and chronology of the kings of Magadha or Bahar into confuſion. For having diſcovered that SAHADEVA, the ſon of JARASANDHA, was contemporary with YUDHISHTHIR, they concluded that as they had already placed YUDHISHTHIR at the cloſe of the Dwapar yug, SAHADENA muſt be at the beginning of the Cali yug; and therefore, without further ceremony, not only removed SAHADEVA but his nineteen ſucceſſors, who formed a dynaſty in the family of JARASANDHA from the proper period in hiſtory (between the years 1920 and 2193 of the Cali yug), and placed them immediately before PRADYOTA, who began his reign in the 1000th year of the Cali yug. This removal was productive of two abſurdities at once, both of which are particularly noticed by the late Sir WILLIAM JONES in his chronology of the kings of Magadha. The one, that in conſequence of placing the names before PRADYOTA they were obliged to aſſert that the twenty princes reigned one thouſand years, that is, from the beginning of the Cali yug in the year of 906 of the Creation down to the 1905th; ſo that they muſt have then reigned as well during the flood as before, and after it. The other, that as a chaſm had been formed in that part of the hiſtory from which the twenty reigns were removed, in order to make up that chaſm as well as they could, they were obliged to aſſert that a dynaſty of four princes of the Canna race, the firſt of whom (VASUDEVA) came to the throne in the year of the world 2753, or 1848 of the Cali yug, reigned no leſs than 345 years.

Now as YUDHISHTHIR was the uncle and immediate predeceſſor of PARICSHIT, and conſequently contemporary with PARASARA the father of VYASA; it

it is clear that both YUDHISHTHIR and SAHADEVA muſt have reigned about the year 2825 of the world: which is about ſeventy-two years after the reign of the above VASUDEVA of the Canna race, and correſponding preciſely with the chaſm.

Innumerable other inſtances of the abſurdities of the modern HINDUS might be produced, but thoſe I have mentioned and explained I think are ſufficient. I ſhall therefore conclude the ſubject of the poetic æras with the following table, ſhewing the moon's age and month, with the day of the week on which the Satya, Treta, Dwapar, and Cali yugs of the poets reſpectively commenced; which will prove, beyond a probability of doubt, that they have no connection whatever with the aſtronomical yugs of the ſame name, belonging to the ſyſtem of MEYA explained at the beginning of this eſſay; for in the latter all the Yugs, Manwantaras, &c. belonging to the ſyſtem begin unvariably on the firſt day of *Byſakh*, the moment the ſun enters Aries in the *Hindu* ſphere.

Poetic Æras.	*Days of the Week.*	*Moon's Age and Month.*
Satya yug	*Sunday*	3d titthee of the moon of *Byſakh.*
Treta do.	*Monday*	9th do. of do. *Cartic.*
Dwapar do.	*Thurſday*	28th do. of do. *Bhadro.*
Cali do.	*Tueſday*	15th do. of do. *Magh.*

Note. The lunar month takes its name from the ſolar month, in which the new moon happens to fall. 30 titthees make a lunation.

With reſpect to the day of the week mentioned in the preceding table ſome of the Hindu accounts differ. The moon's age and month are extracted from the Brohmo puran, which agrees with the Hindu calendar, wherein the commencement of each yug is alſo recorded.

The following table of the dates of the ten avatars or incarnation of the deity, which took place in the above-mentioned yugs, is extracted from an augum or tontor called "Guhjateeguhja" ſuppoſed to have been written by SEEB or SEEVA, a Hindu deity.

TABLE

TABLE OF THE AVATARS.

	Avatars.	*Week Day.*	*Moon's Age and Month.*	*Nakſhatra.*
1	MOTCHYO	Monday	1 titthee *Chitro*	*Revati*
2	KURMO	Wedneſday	2 *Joiſt'ho*	*Rohini*
3	BORAHO	Sunday	7 *Magho*	*Aſwini*
4	NREESINGHO	Saturday	14 *Byſakho*	*Swati*
5	BAMONO	Friday	12 *Bhadro*	*Sravana*
6	POROSURAMO	Saturday	3 *Byſakho*	*Rohini*
7	RAMO	Monday	9 *Chitro*	*Punaryobaſee*
8	KREESNO	Wedneſday	23 *Bhadro*	*Rohini*
9	BOODHO	Sunday	10 *Aſaro*	*Byſakha*
10	KOLKEE	Saturday	2 *Agrahain*	*Purvaſara*

The 1ſt, 2d, 3d, and 4th Avatars are ſuppoſed to have happened during the period of the Satya yug; the 5th, 6th and 7th in the Treta yug; the 8th and 9th in the Dwapar yug; and the 10th or laſt in the Cali yug of the Poets, long ſince paſt.

Having then finiſhed what I had to ſay reſpecting the poetic æras, and the abſurdities introduced into the hiſtory and chronology of the Hindus, by confounding them with the aſtronomic ſyſtem of MEYA, I ſhall now proceed to a third ſyſtem, wherein the Manwantaras appear to have been but of ſhort duration, and to depend on the revolutions of either JUPITER or SATURN. This ſyſtem, like that of the poetic æras, has been always confounded with that of MEYA's, and conſequently the cauſe of much confuſion in the records of ancient times. To diſtinguiſh it from MEYA's I ſhall call it the *Puranic* Syſtem, and, by way of introduction, give the following table of the dates, &c. of the fourteen puranic Manwantaras, as contained in a Hindu book entitled the *Uttara Chanda*, from which Captain FRANCIS WILFORD was ſo obliging as to favour me with an extract.

TABLE OF THE PURANIC MANWANTARAS.

Manwantaras.	*Day of the Week.*	*Moon's Age and Month.*	*Nakſhatra.*
1	Began on *Sunday.*	9th titthee of *Aſwin.*	*Sravana.*
2	—— *Thurſday.*	12 —— *Cartic.*	*Utto Bhadropada.*
3	—— *Monday.*	3 —— *Chitr.*	*Critica.*
4	—— *Friday.*	3 —— *Bahar.*	*Hoſta.*

Manwantaras.

Manwantaras.	*Day of the Week.*	*Moon's Age and Month.*	*Nakſhatra.*
5	—— *Tueſday.*	30 —— *Phalgun.*	*Solobhiſa.*
6	—— *Saturday.*	11 —— *Pous.*	*Rhoini.*
7	—— *Friday.*	10 —— *Aſar.*	*Swati.*
8	—— *Tueſday.*	7 —— *Magh.*	**Onurada.*
9	—— *Sunday.*	23 —— *Srabon.*	*Rhonini.*
10	—— *Friday.*	15 —— *Aſar.*	*Uttora Sara.*
11	—— *Monday.*	15 —— *Cartic.*	*Critica.*
12	—— *Thurſday.*	15 —— *Phalgun.*	*Uttora-Pholguni.*
13	—— *Wedneſday.*	15 —— *Chitr.*	*Chitra.*
14	—— *Wedneſday.*	15 —— *Yoiſhth.*	*Jeyſta.*

The order in which the above Manwantaras followed each other is not now known, but I have given them in the order in which they were written, in the memorial *ſloke* or verſe. However, as the firſt Manwantara commenced juſt when fifty years of BRA'HMA's life (that is, one half of the grand cycle of this ſyſtem) were expired, it is eaſy to perceive that the 13th on the liſt muſt have been the firſt Manwantara; and I ſuſpect that the 10th was the ſecond, the 11th the third, the 12th the fourth, and the 14th the fifth Manwantaras, all of which appear to have been computed according to mean motions only, the other nine having the appearance of being computed according to the true place of the planet, on which the regulation of the periods depended.

In this ſyſtem, which appears to have been in uſe before the time of MEYA for yugs, viz. a Satya, Treta, Dwapar, and Cali yug formed a Maha yug; ſeventy-one Maha yugs with a Sandhi, equal to a Satya yug, formed a Manwantara; and fourteen of ſuch Manwantaras with a Sandhi, equal to a Satya yug, or 1000 Maha yugs, formed a Calpa or a day of BRA'HMA, and his night was of the ſame length; 360 of ſuch days and nights form one of his years: and 100 of ſuch years the period of his life or the grand Puranic cycle, in which all the planets with the nodes and apſides of their reſpective orbits were ſuppoſed to return to a line of conjunction in the beginning of Aries, the point they ſet out from at the commencement of the cycle.

From the apparent ſhortneſs of the Puranic Manwantaras (which probably did not exceed 3 or 400 years at moſt), and conſequently of the Calpa, the cycle or term of BRA'HMA's life above mentioned appears to have been abſolutely ne-

* Onurada appears incorrect as the moon of Magh muſt be 20 or 21 days old before it enters Onurada Nakſhatr.

ceſſary

ceſſary in this ſyſtem to render it applicable to the purpoſe of aſtronomy. But in the ſyſtem of MEYA *now in uſe* that cycle is now totally unneceſſary, nor does it in fact belong to it, as the Calpa alone in the latter contains all the leſſer cycles of the revolutions of the planets, nodes, &c. within the period of its durations.

MEYA, the ſuppoſed author of Surya Sidhanta, lived in the Satya yug of the 28th Maha yug, of the 7th Manwantara of the fifty-firſt year of Bráhma's life, and probably finding the Puranic ſyſtem either inconvenient, or not ſufficiently correct, he invented the preſent one on a much larger ſcale, extending the duration of a Manwantara to 308448000 years, and ſimplified the ſyſtem by making the yugs, &c. to depend on ſolar motion alone; by which means, all the periods in his ſyſtem begin invariably on the firſt day of Byſakh, the moment the ſun enters Aries in the Hindu ſphere, which circumſtance alone, muſt form a moſt ſtriking difference between it, and the Puranic ſyſtem.

In the Surya Sidhanta, MEYA has ſtated the obliquity of the ecliptic in his time at 24°, from whence Mr. S. DAVIS, a gentleman to whom the public is under very conſiderable obligations, for his valuable paper on the aſtronomical computations of the Hindus, publiſhed in the Aſiatick Reſearches, computed that, ſuppoſing the obliquity of the ecliptic to have been accurately obſerved by the ancient Hindus as twenty-four degrees, and that its decreaſe had been from that time half a ſecond a year, the age or date of the Surya Sidhanta (in 1789) would be 3840 years; therefore MEYA muſt have lived about the year 1956 of the creation.

The Hindu books place POROSU RAM one of the incarnate divinities in the 8th Manwantara of the Puranic ſyſtem, and ſo they do VYASA, and OSOTHAMO, the ſon of DRON mentioned in the Mahabharat; and ſince the time of VYASA the remaining ſix Manwantaras have expired, as will appear from the following table of all the Patriarchs or Munoos, &c. from the time of SWOYOMBHOOBO or ADAM, who lived in the firſt Manwantara, down to the end of the fourteenth, which I have extracted from the Sreebhagobot, and from which ſome rational idea may be formed reſpecting the duration of the Puranic Manwantara, now generally confounded with the periods of the ſame name belonging to MEYA's ſyſtem, in which we are now no further advanced than to the ſeventh Manwantara, and which was the ſame when he wrote long before the time of VYASA.

TABLE

TABLE *of the* PATRIARCHS or MUNNOOS, *and others, during the fourteen Puranic Manwantaras.*

1ſt MANWANTARA.

SWOYOMBHOOBO, or ADAM. *Munoo*
SOTOROOPA, his wife
PREEYOBROTO, his ſon
UTTANPADO, his ſecond ſon
AKOOTEE SWOYOMBHOOS, 1ſt daughter
DEBOOTE, ditto, 2d ditto
PROSOOTEE, ditto, 3d ditto
ROOCHEE, the huſband of AKOOTEE
KORDOM, ditto of DEBOOTEE
DOKSOPROJAPOOTEE, ditto of PROSOOTEE
TOOREETO
MOREECHEE
MEESRO
YOGO.

2d MANWANTARA.

SWAROCHEESO. *Munoo*
RAJA DYUMOT, his ſon
RAJA SUSENO, ditto
RAJA ROCHEESMOT, ditto
TOOREETO
URJOSTOMBHO
ROCHONO, and others.

3d MANWANTARA.

UTOMO. *Munoo*
POBONO, his ſon
SRINJOYO, ditto
JOGOTRO, ditto
SOTYO
BEDOSUTO
BHODRO
PROMODO
SOTYOJEET, and many others.

4th MANWANTARA.

TAMOSO. *Munoo*
BREESOKHYATEE, his ſon
NOROHKETU, ditto
SOTYOKHOROYO
BEERSO
BEDHREETOYO
JOTEERDMA
TREESECKHOISWORO, & many others.

5th MANWANTARA.

RIBOTO. *Munoo*
BOTFF, his ſon
BFENDHO, ditto
BHOOTOROYO
HERONYOROMA
BEDOSEERA
URDHOBAHOO
BEEBHOO, and many others.

6th MANWANTARA.

CHAKSOOSO. *Munoo*
PURRU, his ſon
PURRUSO, ditto
SUDYUMNO, ditto
PRODYUMNO, ditto

VAVIOSWATA, or NOAH. *Munoo*
ICSHWAKU, his 1ſt ſon
NREEGO, 2nd ditto
DREESTO, 3d ditto
SORYATI, 4th ditto
NORISYANTO, 5th ditto
PREESODHRO, 6th ditto
NOBHOGO, 7th ditto
KOBEE, 8th ditto
DEESTO, 9th ditto
BARUNO, 10th ditto
ADITYO
BOSU

SABORNI. *Munoo*
NEERMOKO, his ſon
BEEROJOSKA, ditto
SUTOPA
BEEROJA
OMREETOPROBHO
GABOLO

DOKSOSABORNI. *Munoo*
BOOTOKETU, his ſon
DIPTIKETU, ditto
DREESTOKETU, ditto
MORICHI

APYO
HORYOSMOT
DWEEROKO
MONTRODRUMO, and many others

7th MANWANTARA.

RUDRO
BISWEDEBO
MORUDGONO
OSNIKUMAR
RIBHOBO
KOSYAPO
OTRI
BOSISTO
BISWAMITRO
GOUTOMO
JOMODOGNEE
BHORODWAJO
PURONDORO, and many others.

8th MANWANTARA.

POROSU RAM
DIPLIMAN
OSOTTHAMO, ſon of DRON
KREEPO
REESYOSRINGO
VYASA or BYASA.

9th MANWANTATA.

GHORBO
PARO
DYUTIMOT
STRUTHO, and many others.

10th MAN-

10th MANWANTARA.

BROMOSABORNEE. *Munoo*	SUKREETO
BHURISIN, his ſon	SOTYO
SURASONO	JOYO
BIRUDHO	MURTI
HOBISMAN	SOMBHOO, and many others.

11th MANWANTARA.

DHOMORSABORNEE. *Munoo*	NEERBANO
SOTYO DHORMO, his ſon	ROOCHEE
BIHONGGONO	ORUNO
KAMOGOMO	BIDRETTO, and many others.

12th MANWANTARA.

RUDROSABORNEE. *Munoo*	TOPOMURTI
DEBOBAN, his ſon	TOPOSEE
UPODEBO, ditto	OGNEEDROKO
DEBOSREESTO, ditto	GONDHODHAMA, and many others.
HORITO	

13th MANWANTARA.

DEBOSABORNEE. *Munoo*	SUTRAMO
CHITROSENO, his ſon	NEERMOKO
BICHITRO, ditto	DIBOSPOTEE, and many others.
SUKORMÆ	

14th MANWANTARA.

EENDROSOBORNI. *Munoo*	OGNEE
URUNGGO, his ſon	BAHOO
BHURU, ditto	SOOCHEE
BODHNO, ditto	SUDHO
POBETROO	MAGODHO, and many others.
CHAKSOOSO	

NOTE. Several names in the foregoing table had the title of Devtas, Reeſhees, &c. annexed to them, probably by way of diſtinction or pre-eminence.

UTOMO, TOMOSO, and RIBOTO, the third, fourth, and fifth Munoos, were the grandſons of SWOYOMBHOOBO, or ADAM; DOKSO SABORNEE, the ninth Munoo, was the ſon of BARUNO or VARUNO, the tenth ſon of VAIVOSWATA: therefore it is eaſy to perceive that the Puranic Manwantara, which was conſidered

ſidered in ancient times as the duration of the life of a Munoo or Patriarch could not be very long, and ought not to be confounded with the Manwantaras of the preſent ſyſtem of MEYA, conſiſting of 308448000 years each.

A CHRONOLOGICAL TABLE

Of the ſolar and lunar line of princes, who are ſaid to have reigned in the Cities of Ayodhya or Audh (now Oud), and Praliſhthana or Vitora, otherwiſe Haſtinapoor (now Delhi) reſpectively, from about the beginning of the Treta yug of the Poets, or 1002nd year of the aſtronomic Cali yug, down to the time the ſolar line of princes became extinct; when the country is ſuppoſed to have been conquered by ſome foreign power; probably Alexander.

Poetic Æra.	*Solar Line.*		*Year of the World.*	*Lunar Line.*		*Aſtr. Æra. Cali Yug.*
179	Icſwachu		1907	Budha		1002
	Vicucſhi			Pururavas		
	Cucuſta			Ayuſh		
	Anenas			Nahuſha		
	Prithu	5		Yayati	5	
	Viſwagandhi			Puru		
	Chandra			Janamejaya		
	Yuvanaſwa			———		
	Srava			———		
	Vrihadhaſwa	10		———	10	
	Dhundhumara			———		
	Dridhaſw a			———		
	Heryaſwa			———		
	Nicumbha			———		
	Criſaſwa	15		———	15	
	Senajit			———		
	Yuvanaſwa			———		
	Mandhatri			———		
	Purucutſa			Prachinwat		
	Traſadaſyu	20		Pravira	20	
	Anaranya			Menaſyu		
	Heryaſwa			Charupada		
	Praruna			Sudyu		
	Trivendhana			Bahugava		
	Satyayrata	25		Sanyati	25	
	Triſancu			Ahanyati		

Treta Yug, or Silver Age.

Hariſ-

Poetic Æra.	*Solar Line.*		*Year of the World.*	*Lunar Line.*		*Aſtr. Æra. Cali Yug.*
	Hariſchandra			Raudraſwa		
	Rhoita			Riteyuſh		
	Harita			Rautinava		
	Champa	30		Sumati	30	
	Sudeva			Aiti		
	Vijaya			Duſhmanta		
	Bharuca			Bharata		
	Vrica			Vitatha		
	Bahuca	35		Manyu	35	
	Sagara			Vrihatſhetra		
	Aſmanjas			Haſtin		
	Anſumat			Ajamedha		
	Bhaghiratha			Ricſha		
	Sruta	40		Samwarana	40	
	Nabha			Curu		
	Sindhadwipa			Jahnu		
	Ayutayuſh			Suratha		
	Ritaperna			Viduratha		
	Saudaſa	45		Sarvabhauma	45	
	Aſmaca			Jayaſinha		
	Mulaca			Radhica		
	Daſaratha	—		Ayutayuſh		
	Aidabidi			Acrodhana		
	Viſwaſaha	50		Devatithi	50	
	Chatawanga			Ruſha		
	Derghabahu	—		Dillipa		
	Ragu	—		Pratipa		
	Aja	—		Santanu		
	Daſaratha	55		Vachytravirya	55	
	Rama			Pandu		
1097	Vrihadbala		2825	Yudhiſhthira		1920
1107	Vrihadrana		2835	Paricſhit		1930
	*Urucrya			*Janamajaya		
	*Vatſavridha	60		*Satanica	60	
	*Pratoyoma			*Sahaſrinaca		
	*Bhanu			*Aſwamedhaja		
	*Devaca			*Aſimacriſhna		
	*Sahadeva			*Nemichacra		
	*Vira	65		*Upta	65	
1296	*Vridhaſwa			*Chitrarata		2119

Treta Yug, or Silver Age.

Cuſha

Poetic Æra.	*Solar Line.*		*Year of the World.*	*Lunar Line.*		*Astr. Æra. Cali Yug.*
1	Cuſha		3025	*Suchiratha		2120
	Attithi			*Dhritimat		
	Niſhadha			*Suſhiná		
	Nabas	70		*Sunitha	70	
	Pundarica			*Nrichaeſhuh		
	Cſhemadhanwas			*Suchinala		
	Devanica			*Pariplava		
	Ahſniagu			*Sunagar		
	Paripatra	75		*Medhavin	75	
	Ranachala			*Nripanjava		
	Vajranabha			*Derva		
	Arca			*Trini		
	Sugana			*Vrihadratha		
	Vidhriti	80		*Sudhaſa	80	
	Hiranyanabha			*Satanica		
	Puſhya			*Durmadana		
	Druvaſandhi			*Rahinara		
	Suderſana			*Dandapani		
	Agniverna	85		*Nimi	85	
	Sighira			*Cſhimaca		
	Maru			——		
	Praſuſruta			——		
	Sandhi			——		
	Amerſana	90		——	90	
	Mahaſwat			——		
	Viſwabhahu			——		
	Praſenhajit			——		
	Tacſhaca			——		
	*Bannumat	95		——	95	
	*Practicaſwa			——		
	*Supratica			——		
	*Marudeva			——		
	*Sunaſchatra			——		
	*Puſhcara	100		——	100	
	*Antaricſha			——		
	*Sutapas			——		
	*Amitrajit			——		
	*Vrihadraja			——		
	*Barhi	105		——	105	
	*Critanjaya			——		

Dwapar Yug, or Brazen Age.

*Ranan-

Poetic Æra.	Solar Line.		Year of the World.	Lunar Line.		Aſtr. Æra. Cali Yug.
Dwapar Yug, or Braz. Age	*Rañanjaya					
	*Slocya					
	*Sudhoda	110			110	
	*Langalada					
	*Praſenajit					
	*Cſudraca					
	*Sumitra					
	——	115		——	115	
	——			——		
864	——	117	3888	——	117	2983

In the preceding table I have placed Yudhiſhthir in the year 2825 of the world, correſponding to the 1097th of the Treta yug of the Poets, and to the 1920th of the aſtronomic Cali yug: that this is about the period in which Yudhiſhthir reigned I have not myſelf the ſmalleſt doubt, not only becauſe he muſt have been contemporary with Paraſara the father of Vyaſa, but alſo on account of the exact coincidence of that period with the chaſm of the chronology of the kings of Maghada, which appears ſufficiently evident to have been occaſioned by the removal of the dynaſty of Sahadeva, who was contemporary with Yudhiſhthir, from that period of hiſtory.

From the probabilities of the duration of life deduced from obſervations on bills of mortality, it appears, that the mean duration of human life, taking one man with another, does not exceed thirty-two or thirty-three years. Admitting, however, the mean duration of life to be thirty-three years, of this we cannot allow more than a half, or ſeventeen years at the utmoſt, to each reign, in a long ſucceſſion of princes. Therefore, as Icſhwacu, the ſon of Noah, began his reign near the beginning of the Treta yug, or in the year 179 of that period, if we divide the remaining years 1117 in the Treta yug by 17, we ſhall have about ſixty-ſix reigns from Icſhwacu's time down to the end of the Treta yug; and this number of reigns is confirmed by the place of Yudhiſhthir in the table, being the fifty-ſeventh reign, and at the ſame time about 200 years before the end of the Treta yug; ſo that, in all probability, it would require at leaſt nine or ten reigns more, from his time down to the end of that period. After the ſame

manner,

manner, the number of computed reigns for the whole of the Dwapur yug or 864 years, would be fifty-one: which, with the former number, make altogether 117 computed reigns; and of this number we find no more than 114 in the ſolar line of princes, and ſtill conſiderably leſs in the lunar line.

In conſequence of the ancient hiſtorians adopting the aſtronomic æra of the Cali yug, at the cloſe of Paricſhit's reign, as already noticed, Yudhiſhthir and Paricſhit's in the lunar line, and with Vrihadbala and Vrihadrana, their contemporaries in the ſolar line were removed (with others) by the modern commentators from the cloſe of the Treta yug down to the cloſe of the Dwapar yug of the Poets; therefore Rama was ſuppoſed to have been the laſt prince of the ſolar line who reigned in Oud at the cloſe of the Treta yug: and as they had placed the immediate ſucceſſors of Paricſhit at the beginning of the Cali yug; ſo, in like manner, the immediate ſucceſſors of Vrihadrana may be ſuppoſed to have been placed at the beginning of the Cali yug alſo: hence the mode of correction required becomes obvious.

I have therefore reſtored Vrihadbala and Vrihadrana to their proper places in the Treta yug, as contemporaries with Yudhiſhthir and Paricſhit; and the remaining names down to the end of that period marked with a *, were their ſucceſſors as placed in the Cali yug.

The other names marked with a *, are the remaining princes mentioned in Sir William Jones's chronology as reigning in the Cali yug; all of whom, however, if they reigned at all, muſt have reigned before the end of the Dwapar yug of the Poets; and their being mentioned by ancient hiſtorians as reigning in the Cali yug, does not at all imply that they reigned after the Dwapar yug, but only in the aſtronomical Cali yug, which commenced the 906th year of the Satya yug of the Poets, and has been unfortunately confounded (by the modern Hindu commentators) with their Cali yug; with which however it has no relation except in name: or to ſpeak more correctly, they have confounded the fictitious ages of the Poets with the real aſtronomic periods.

With reſpect to the chaſm in the lunar line of princes after Jananujaya, the names that are miſſing muſt either have been loſt, or elſe, which is more probable, mentioned by the ancient hiſtorians, as reigning in the Cali yug of the aſtronomical æra; and as Jananujaya is the firſt prince mentioned as reigning in the Cali yug, in the lunar line, it is very probable he may be the ſame perſon recorded

recorded as reigning in the Treta yug; and if that ſhould be the caſe, the eleven names that follow next to him, moſt likely will be thoſe that ſhould fill the chaſms.

At what particular period of time, the ſolar line of princes became extinct, it is not eaſy to aſcertain; by the table, it would appear, that it muſt have been fifty years before the year 3888 of the world; but as I allowed ſeventeen years to each reign, which is rather too much in a long ſucceſſion of eldeſt ſons, it is probable it muſt have ended about 100 years at leaſt, earlier than given by the table; which will place the end of the laſt prince's reign, about the year 3788 of the world.

Alexander the Great paid his viſit to India about the year 3888 of the world, or end of the Dwapar yug; but whether he was the cauſe of the ſolar line of princes becoming about that time extinct, or whether Praſenajit (the laſt prince but two mentioned in the table, and whoſe name might be pronounced or corrupted into Poraſnajit, Poruſnajit, or even Porus itſelf, leaving out the termination najit) was the prince named Porus, whom Alexander conquered and took priſoner, I will leave to others to decide.

A CHRONOLOGICAL TABLE

Of the kings of Magadha or Behar, from the reign of PRADYOTA, in the year 1095 of the world, down to that of CHANDRABIJA in the year 3554, containing a period of 1649 years.

Anno Mundi.		*Cali Yug.*	*Anno Mundi.*		*Cali Yug.*
1905	Pradyota	1000	2404	Nanda	1499
	Palaca		2504	Chandragupta	1599
	Viſachayupa			Varifara	
	Rajaca			Aſocaverdhana	
	Nandivirdana			Suyaſas.	
2044	Siſunga	1139		Deſaratha	
	Cacaverna			Sandgatha	
	Cſhemadherman			Saliſuca	
	Cſhetrajirya			Somaſarman	
	Vidiſara			Satadhanwas	
	Ajataſatru			Vriadratha	
	Darbaca		2641	Puſhpamitha	1736
	Ajaya			Agnamitra	
	Nandeverdhana			Sujyeſhtha	
	Mahanandi			Vaſumitra	

Anno Mundi.		*Cali Yug.*	*Anno Mundi.*		*Cali Yug.*
	Abhadraca			*Sumati	
	Pulinda			*Subala	
	Ghoſha			*Sunita	
	Vajramitra			*Saytajit	
	Bhagavata		3098	Balin	2193
	Devabuti			Criſhna	
2753	Vaſudeva	1848		Sriſantacarna	
	Bhumitra			Paurnamaſa	
	Narayana			Lambodara	
	Suſarman			Vivilaca	
2825	*Sahadeva	1920		Meghaſwata	
	*Marjari			Vatamana	
	*Srutaſrava			Talaca	
	*Ayutayuſh			Sivaſwati	
	*Niramitra			Puriſhabheru	
	*Sunacſhatra			Sumandana	
	*Vriſhetſena			Chacoraca	
	*Carmajit			Bataca	
	*Srutanjaya			Gomalin	
	*Vipra			Purimat	
	*Suchi			Medaſiras	
	*Cſhema			Seraſcanda	
	*Suvrata			Yajnyaſri	
	*Dhermaſutra			Vijaya	
	*Srama		3554	Chandrabija	2649
	*Dridhaſena				

The names with a * ſet before them, are thoſe whom I mentioned in the foregoing remarks, to have been erroneouſly placed by the modern Hindus before Pradyota; for Sahadeva, the firſt of the dynaſty, was contemporary with Yudhiſhthir, who reigned about the year 2825 of the world. I have therefore reſtored them again to their proper places in hiſtory, and by that means corrected the two abſurdities pointed out by the late Sir William Jones, in the Hindu chronology of the kings of Magadha or Behar.

Calcutta, 2nd October, 1796.

XXII.

ON THE RELIGIOUS CEREMONIES OF THE HINDUS, AND OF THE BRA'HMENS ESPECIALLY.

By H. T. COLEBROOKE, *Esq.*

ESSAY I.

THE civil Law of the Hindus containing frequent alluſions to their religious rites, I was led, among other purſuits connected with a late undertaking, to peruſe ſeveral treatiſes on this ſubject, and tranſlate from the Sanſcrit ſome entire tracts and parts of others. From theſe ſources of information upon a ſubject on which the Hindus are by no means communicative, I intend to lay before the Society, in this and ſubſequent eſſays, an abridged explanation of the ceremonies, and verbal tranſlations of the prayers uſed at rites, which a Hindu is bound conſtantly to perform. In other branches of this enquiry, the Society may expect valuable communications from our colleague Mr. W. C. BLAQUIRE, who is engaged in ſimilar reſearches. That part of the ſubject to which I have confined my enquiries will be alſo found to contain curious matter, which I ſhall now ſet forth without comment, reſerving for a ſubſequent eſſay the obſervations which are ſuggeſted by a review of theſe religious practices.

A Bráhmana riſing from ſleep is enjoined under the penalty of loſing the benefit of all rites performed by him, to rub his teeth with a proper withe, or a twig of the racemiferous fig tree, pronouncing to himſelf this prayer, "Attend, lord of the "foreſt; SOMA, king of herbs and plants, has approached thee: mayeſt thou and "he cleanſe my mouth with glory and good auſpices, that I may eat abundant "food." The following prayer is alſo uſed upon this occaſion, "Lord of the foreſt! "grant me life, ſtrength, glory, ſplendour, offſpring, cattle, abundant wealth, "virtue, knowledge, and intelligence." But if a proper withe cannot be found, or on certain days when the uſe of it is forbidden (that is, on the day of the conjunction, and on the firſt, ſixth, and ninth days of each lunar fortnight), he muſt rinſe his mouth twelve times with water.

Having

Having carefully thrown away the twig, which has been uſed, in a place free from impurities, he ſhould proceed to bathe, ſtanding in a river or in other water. The duty of bathing in the morning and at noon, if the man be a houſeholder, and in the evening alſo, if he belong to an order of devotion, is inculcated by pronouncing the ſtrict obſervance of it in no leſs efficacious, than a rigid penance, in expiating ſins, eſpecially the early bath in the months of Magha, Pholgima, and Cartica: and the bath being particularly enjoined as a ſalutary ablution, he is permitted to bathe in his own houſe, but without prayers, if the weather, or his own infirmities, prevent his going forth; or he may abridge the ceremonies and uſe fewer prayers, if a religious duty or urgent buſineſs require his early attendance. The regular bath conſiſts of ablutions followed by worſhip and by the inaudable recitation of the Gáyatri with the names of the worlds. Firſt ſipping water, and ſprinkling ſome before him, the prieſt recites the three ſubjoined prayers, while he performs an ablution by throwing water eight times on his head, or towards the ſky, and concludes it by caſting water on the ground to deſtroy the Demons, who wage war with the Gods. "1ſt. O waters! ſince ye afford delight, grant us preſent happineſs, and the rapturous ſight of the ſupreme God. 2d. Like tender Mothers make us here partakers of your moſt auſpicious eſſence. 3d. We became contented with your eſſence, with which ye ſatisfy the univerſe. Waters! grant it unto us." For, as otherwiſe expounded, the third text may ſignify, Eagerly do we approach your eſſence, which ſupports the univerſal abode. Waters! grant it unto us." In the Agni purána the ablution is otherwiſe directed: "At twilight, let a man attentively recite the prayers addreſſed to water, and perform an ablution by throwing water on the crown of his head, on the earth, towards the ſky; again towards the ſky, on the earth, on the crown of his head, on the earth, again on the crown of his head; and laſtly, on the earth." Immediately after this ablution he ſhould ſip water without ſwallowing it, ſilently praying in theſe words, "Lord of ſacrifice! thy heart is in the midſt of the waters of the ocean; may ſalutary herbs and waters pervade thee. With ſacrificial hymns and humble ſalutation we invite thy preſence: may this ablution be efficacious." Or he may ſip water while he utters inaudably the myſterious names of the ſeven worlds. Thrice plunging into water he muſt each time repeat the expiatory text which recites the creation; and having thus completed his ablution, he puts on his mantle after waſhing it, and ſits down to worſhip the riſing ſun.

This

This ceremony is begun by his tying the lock of hair on the crown of his head, while he recites the Gáyatri, holding much cuſa graſs in his left, and three blades of the ſame graſs in his right hand; or wearing a ring of graſs on the third finger of the ſame hand. Thrice ſipping water with the ſame text preceded by the myſterious names of worlds, and each time rubbing his hands as if waſhing them; and finally touching with his wet hand his feet, head, breaſt, eyes, ears, noſe, and navel, or his breaſt, navel, and both ſhoulders, only (according to another rule) he ſhould again ſip water three times pronouncing to himſelf the expiatory text which recites the creation. If he happen to ſneeze, or ſpit, he muſt not immediately ſip water, but firſt touch his right ear in compliance with the maxim, "after ſneezing, ſpitting, blowing his noſe, ſleeping, putting on apparel, or dropping tears, a man ſhould not immediately ſip water, but firſt touch his right ear." "Fire," ſays PARASARA, "water," the védas, "the ſun, moon, and air, all reſide in the right "ears of Bráhmanas. Ganga is in their right ears, ſacrificial fire in their "noſtrils; at the moment when both are touched, impurity vaniſhes." This, by the by, will explain the practice of ſuſpending the end of the ſacerdotal ſtring over the right ear, to purify that ſtring from the defilement which follows an evacuation of urine. The ſipping of water is a requiſite introduction of all rites; without it, ſays the Samba purána, all acts of religion are vain. Having therefore ſipped water as above mentioned, and paſſed his hand filled with water briſkly round his neck, while he recites this prayer: "May the Waters preſerve me!" The prieſt cloſes his eyes, and meditates in ſilence, figuring to himſelf that BRA'HMA with fair faces, "and a red complexion, reſides in his navel; VISHNU with four arms and a black "complexion, in his heart; and SIVA with five faces and a white complexion, in "his forehead." The prieſt afterwards meditates the holieſt of texts during three ſuppreſſions of breath. Cloſing the left noſtril with the two longeſt fingers of his right hand, he draws his breath through the right noſtril, and then cloſing that noſtril likewiſe with his thumb, holds his breath while he meditates the text: he then raiſes both fingers off the left noſtril, and emits the breath he had ſuppreſſed. While he holds his breath he muſt on this occaſion repeat to himſelf the Gáyatri with the myſterious names of the worlds, the triliteral monoſyllable, and the ſacred text of BRA'HME. A ſuppreſſion of breath ſo explained by the ancient legiſlator; YA'JNYAWALCYA conſequently implies the following meditation, "Om! earth! ſky! heaven! middle region! place of births! manſion of the bleſſed! abode of truth!"

"We

" We meditate on the adorable light of the reſplendent Generator which governs " our intellects: which is water, luſtre, ſavour, immortal faculty of thought, " BRA'HME, earth, ſky, and heaven." According to the commentary, of which a copious extract ſhall be ſubjoined, the text thus recited ſignifies, " That effulgent " power which governs our intellects is the primitive element of water, the luſtre of " gems and other glittering ſubſtances, the ſavour of trees and herbs, the thinking " ſoul of living beings; it is the creator, preſerver, and deſtroyer, the ſun and every " other deity and all which moves, or which is fixed in the three worlds, named, " earth, ſky, and heaven. The ſupreme BRA'HME, ſo manifeſted, illumines the ſeven " worlds; may he unite my ſoul to his own radiance (that is to his own ſoul, which " reſides effulgent in the ſeventh world, or manſion of truth)." On another occaſion the concluding prayer, which is the Gáyatri of BRA'HME, is omitted, and the names of the three lower worlds only are premiſed: thus recited, the Gáyatri properly ſo called, bears the following import: " On that effulgent power, which is " BRA'HME himſelf, and is called the light of the radiant ſun, do I meditate; go- " verned by the myſterious light which reſides within me, for the purpoſe of " thought; that very light is the earth, the ſubtil ether, and all which exiſts " within the created ſphere; it is the threefold world, containing all which is " fixed or moveable; it exiſts internally in my heart, externally in the orb of the " ſun; being one and the ſame with that effulgent power. I myſelf am an " irradiated manifeſtation of the ſupreme BRA'HME." With ſuch reflections, ſays the commentator, ſhould the text be inaudibly recited.

Theſe expoſitions are juſtified by a very ample commentary in which numerous authorities are cited; and to which the commentator has added many paſſages from ancient lawyers and from mythological poems, ſhowing the efficacy of theſe prayers in expiating ſin: as the foregoing explanations of the text are founded chiefly on the gloſs of an ancient philoſopher and legiſlator. Yájnyawalcya, the following extract will conſiſt of little more than a verbal tranſlation of his metrical gloſs:

" The parent of all beings produced all ſtates of exiſtence, for he generates " and preſerves all creatures; therefore is he called the Generator. Becauſe he " ſhines and ſports, becauſe he loves and irradiates, therefore is he called reſplen- " dent or divine, and is praiſed by all deities. We meditate on the light which, " exiſting in our minds, continually governs our intellects in the purſuits of vir- " tue, wealth, love, and beatitude. Becauſe the being, who ſhines with ſeven

" rays,

" rays, aſſuming the forms of time and of fire, matures productions, is reſplendent, " illumines all, and finally deſtroys the univerſe, therefore, he who naturally " ſhines with ſeven rays, is called Light, or the effulgent power. The firſt ſyllable " denotes, that he illumines worlds; the ſecond conſonant implies, that he colours " all creatures; the laſt ſyllable ſignifies, that he moves without ceaſing. From " his cheriſhing all, he is called the irradiating Preſerver."

Although it appears, from the terms of the text, (" Light of the Generator or " Sun,") that the ſun and the light ſpoken of are diſtant, yet, in meditating this ſublime text they are undiſtinguiſhed; that light is the ſun and the ſun is light; they are identical. " The ſame effulgent and irradiating power which animates living beings, as their ſoul exiſts in the ſky, as the male being reſiding in the midſt of the ſun." There is conſequently no diſtinction; but that effulgence, which exiſts in the heart governing the intellects of animals, muſt alone be meditated as one and the ſame, however, with the luminous power reſiding in the orb of the ſun.

" That which is in the ſun and thus called light, or effulgent power, is adorable and muſt be worſhipped by them who dread ſucceſſive births and deaths, and who eagerly deſire beatitude. The being who may be ſeen in the ſolar orb, muſt be contemplated by the underſtanding, to obtain exemption from ſucceſſive births and deaths and various pains."

The prayer is preceded by the names of the ſeven worlds, as epithets of it, to denote its efficacy; ſignifying, " that this light pervades and illumines the ſeven worlds, which, ſituated one above the other, are the ſeven manſions of all beings: they are called the ſeven abodes, ſelf-exiſtent, in a former period, renovated in this. Theſe ſeven myſterious words are celebrated as the names of the ſeven worlds. The place where all beings, whether fixed or moveable, exiſt is called Earth, which is the firſt world. That in which beings exiſt a ſecond time, but without ſenſation, again to become ſenſible at the cloſe of the period appointed for the duration of the preſent univerſe, is the world of re-exiſtence. The abode of the good, where cold, heat, and light, are perpetually produced, is named Heaven. The intermediate region, between the upper and lower worlds, is denominated the Middle World. The heaven where animals, deſtroyed in a general conflagration at the cloſe of the appointed period, are born again, is thence called the World of Births. That in which Sanaca and other ſons of Bráhma, juſtified by auſtere devotion, reſide, exempt from all dominion, is thence named the Manſion

of

of the Bleſſed. Truth, the ſeventh world, and the abode of Bráhme, is placed on the ſummit above other worlds; it is attained by true knowledge, by the regular diſcharge of duties, and by veracity: once attained, it is never loſt. Truth is, indeed, the ſeventh world, therefore, called the Sublime Abode."

The names of the worlds are preceded by the triliteral monoſyllable, to obviate the evil conſequence announced by Menu; "A Bráhmaná, beginning and "ending a lecture of the véda, (or the recital of any holy ſtrain,) muſt always "pronounce to himſelf the ſyllable óm; for unleſs the ſyllable óm precede, his "learning will ſlip away from him; and, unleſs it follow, nothing will be long "retained; or that ſyllable is prefixed to the ſeveral names of worlds, denoting, "that the ſeven worlds are manifeſtations of the power ſignified by that ſyllable. "As the leaf of the paláſá," ſays Yájnyawalcya, "is ſupported by a ſingle "pedicle, ſo is this univerſe upheld by the ſyllable óm, a ſymbol of the ſupreme "Bráhme." All rites ordained in the véda, oblations to fire, and ſolemn ſacri"fices, paſs away, but that which paſſeth not away," ſays Menu, "is declared to "be the ſyllable óm, then called acſhara, ſince it is a ſymbol of God, the Lord "of created beings."

The concluding prayer is ſubjoined to teach the various manifeſtations of that light, which is the Sun himſelf. It is Bráhme, the ſupreme ſoul. The "ſun," ſays Yájnyawalcya, "is Bráhme; this is a certain truth revealed in the "ſacred upaniſhats, and in various ſáchás of the védas. So the Bhawiſhya "purána, ſpeaking of the ſun. Becauſe there is none greater than he, nor has "been, nor will be, therefore he is celebrated as the ſupreme ſoul in all the "védas."

That greateſt of lights, which exiſts in the ſun, exiſts alſo as the principle of life in the hearts of all beings. It ſhines externally in the ſky, internally in the heart; it is found in fire and in flame. This principle of life, which is acknowledged by the virtuous, as exiſting in the heart and in the ſky, ſhines externally in the ethereal region, manifeſted in the form of the ſun. It is alſo made apparent in the luſtre of gems, ſtones, and metals, and in the taſte of trees, plants, and herbs; that is the irradiating being, who is a form of Bráhme, is manifeſted in all moving beings, (gods, demons, men, ſerpents, beaſts, birds, inſects, and the reſt,) by their locomotion; and in ſome fixed ſubſtances, ſuch as ſtones, gems, and metals, by their luſtre; in others, ſuch as trees, plants, and herbs, by their ſavour. Every thing, which moves, or which is fixed, is pervaded by that light, which,

which, in all moving things, exiſts as the ſupreme ſoul, and as the immortal thinking faculty of beings, which have the power of motion. Thus, the venerable commentator ſays, "In the midſt of the ſun ſtands the moon, in the midſt of "the moon is fire, in the midſt of light is truth, in the midſt of truth is the un-"periſhable being." And again, "God is the unperiſhable being, reſiding in the "ſacred abode; the thinking ſoul is light alone; it ſhines with unborrowed ſplen-"dour." This thinking ſoul, called the immortal "principle," is a manifeſtation of that irradiating power, who is the ſupreme ſoul.

This univerſe, conſiſting of three worlds, was produced from water. "He firſt, with a thought, created the waters, and placed in them a productive ſeed." (Menu, chap. i. v. 8.) Water, which is the element whence the three worlds proceeded, is that light, which is alſo the efficient cauſe of creation, duration, and deſtination, manifeſted with theſe powers, in the form of Bráhma, Viſhnu, and Rudra; to denote this, "earth, ſky, and heaven," are ſubjoined as epithets of light. Theſe terms bear alluſion alſo to the three qualities of truth, paſſion, and darkneſs, correſponding with the three manifeſtations of power, as creator, preſerver, and deſtroyer; hence it is alſo intimated, that the irradiating being is manifeſted as Bráhma, Viſhnu, and Rudra, who are reſpectively endued with the qualities of truth, paſſion, and darkneſs. The meaning is, that this irradiating being, who is the ſupreme Bráhme, manifeſted in three forms or powers, is the efficient cauſe of the creation of the univerſe, of its duration and deſtruction. So in the Bhawiſhya purána, Criſhna ſays, "the ſun is the god of perception, the eye "of the univerſe, the cauſe of day; there is none greater than he among the im-"mortal powers. From him this univerſe proceeded, and in him it will reach "annihilation; he is time meaſured by inſtants, &c." Thus the univerſe, conſiſting of three worlds containing all which is fixed or moveable, is the irradiating being; and he is the creator of that univerſe, the preſerver and deſtroyer of it. Conſequently nothing can exiſt, which is not that irradiating power.

Theſe extracts from two very copious commentaries will ſufficiently explain the texts, which are meditated while the breath is held as above mentioned. Immediately after theſe ſuppreſſions of breath, the prieſt ſhould ſip water reciting the following prayer, "May the ſun ſacrifice the regent of the firmament and other "deities who preſide over ſacrifice, defend me from the ſin ariſing from the im-"perfect performance of a religious ceremony. Whatever ſin I have committed "by night, in thought, word, or deed, be that cancelled by day. Whatever ſin

"be in me, may that be far removed. I offer this water to the ſun, whoſe light "irradiates my heart, who ſprung from the immortal eſſence. Be this oblation "efficacious." He ſhould next make three ablutions with the prayers, "Waters! ſince ye afford delight, &c." at the ſame time throwing water eight times on his head, or towards the ſky, and once on the ground as before; and again make ſimilar ablutions with the following prayer: "As a tired man leaves drops of ſweat "at the foot of a tree; as he who bathes is cleanſed from all foulneſs; as an ob-"lation is ſanctified by holy graſs; ſo may this water purify me from ſin." And another ablution with the expiatory text, which rehearſes the creation. He ſhould next fill the palm of his hand with water, and preſenting it to his noſe, inhale the fluid by one noſtril, and, retaining it for a while, exhale it through the other, and throw away the water towards the north-eaſt quarter. This is conſidered as an internal ablution, which waſhes away ſins. He concludes by ſipping water with the following prayer, "Water! thou doſt penetrate all beings; thou doſt "reach the deep receſſes of the mountains; thou art the mouth of the univerſe; "thou art ſacrifice: thou art the myſtick word vaſha; thou art light, taſte, and "the immortal fluid."

After theſe ceremonies, he proceeds to worſhip the ſun, ſtanding on one foot, and reſting the other againſt his ancle or heel, looking towards the eaſt, and holding his hands open before him in a hollow form. In this poſture he pronounces to himſelf the following prayers: 1ſt, "The rays of light announce "the ſplendid fiery ſun, beautifully riſing to illumine the univerſe." 2nd, "He "riſes, wonderful, the eye of the ſun, of water, and of fire, collective power of "gods; he fills heaven, earth, and ſky, with his luminous net; he is the ſoul "of all which is fixed or locomotive." 3d, "That eye, ſupremely beneficial, "riſes pure from the eaſt; may we ſee him a hundred years; may we live a "hundred years; may we hear a hundred years." 4th, "May we, preſerved "by the divine power, contemplating heaven above the region of darkneſs, ap-"proach the deity, moſt ſplendid of luminaries." The following prayer may be alſo ſubjoined, "Thou art ſelf-exiſtent, thou art the moſt excellent ray; "thou giveſt effulgence: grant it unto me." This is explained as an alluſion to the ſeven rays of the ſun; four of which are ſuppoſed to point towards the four quarters, one upwards, one downwards, and the ſeventh, which is centrical, is the moſt excellent of all: and is here addreſſed, in a prayer, which is explained as ſignifying, "May the ſupreme ruler, who generates all things, whoſe lumi-

nous

nous ray is self-existent, who is the sublime cause of light, from whom worlds receive illumination, be favourable to us." After presenting an oblation to the sun, in the mode to be forthwith explained, the Gáyatri must be next invoked, in these words: "Thou art light; thou art seed; thou art immortal life; thou art effulgent: beloved by the gods, defamed by none, thou art the holiest sacrifice." And it should be afterwards recited measure by measure; then the two first measures as one hemistich, and the third measure as the other; and, lastly, the three measures without interruption. The same text is then invoked in these words: "Divine text, who dost grant our best wishes, whose name is trisyllable, whose import is the power of the Supreme Being; come thou mother of the védas, who didst spring from Bráhme, be constant here." The Gáyatri is then pronounced inaudibly with the triliteral monosyllable, and the names of the three lower worlds a hundred or a thousand times, or as often as may be practicable; counting the repetitions on a rosary of gems set in gold, or of wild grains. For this purpose, the seeds of the putrajiva, vulgarly named pitonhia, are declared preferable. The following prayers from the Vishnu purána, conclude these repetitions *: "Salutation to the sun; to that luminary, O Bráhme, who is "the light of the pervader, the true generator of the universe, the cause "of efficacious rites." 2d, "I bow to the great cause of day (whose emblem "is a full blown flower of the yava tree); the mighty luminary sprung from "Casyapa, the foe of darkness, the destroyer of every sin:" or the priest walks a turn through the south, rehearsing a short text, "I follow the course "of the sun;" which is thus explained, "As the sun, in his course, moves "round the world by the way of the south, so do I, following that luminary, ob-"tain the benefit arising from a journey round the earth, by the way of the "south."

* "I omit the very tedious detail respecting sins expiated by a set number of repetitions; but in one instance, as an atonement for unwarily eating or drinking what is forbidden, it is directed, that eight hundred repetitions of the Gáyatri should be preceded by three suppressions of breath, touching water during the recital of the following text: 'The bull roars; he has four horns; three feet, two heads, seven hands, and is bound by a threefold ligature: he is the mighty resplendent being, and pervades mortal men.' The bull is justice personified. His four horns are the Branma or superintending priest, the Udgatri or chanter of the Samadeva, the Hotri or reader of the Rigveda, who performs the essential part of a religious ceremony, and Adhwarin, who sits in the sacred close and chants the Yajurveda. His three feet are the three vedas. Oblations and sacrifice are his two heads, roaring stupendously. His seven hands are the Hotri, Mactravaruma, Bramanach handasi, Gravastata, Adchhavac, Nishtri, and Potri, names by which officiating priests are designed at certain solemn rites. The threefold ligature by which he is bound, is worshipped in the morning, at noon, and in the evening."

The

The oblation above mentioned, and which is called Arg'há, conſiſts of tila, flowers, barley, water, and red ſanders wood, in a clean copper veſſel made in the ſhape of a boat; this the prieſt places on his head, and thus preſents it with the following text, "He who travels the appointed path (namely the ſun) is "preſent in that pure orb of fire, and in the ethereal region, he is the ſacrificer "at religious rites, and he ſits in the ſacred cloſe, never remaining a ſingle day "in the ſame ſpot, yet preſent in every houſe, in the heart of every human being, "in the moſt holy manſion, in the ſubtle ether, produced in water, in earth, in "the abode of truth, and in the ſtony mountains; he is that, which is both "minute and vaſt." This text is explained as ſignifying, that the ſun is a manifeſtation of the ſupreme being, preſent every where, produced every where, pervading every place and thing. The oblation is concluded by worſhipping the ſun with the ſubjoined text, his rays, the efficient cauſes of knowledge, irradiating worlds, appear like ſacrificial fires."

Preparatory to any act of religion, ablutions muſt be again performed in the form preſcribed for the mid-day bath; the practice of bathing at noon is likewiſe enjoined as requiſite to cleanlineſs, conducive to health, and efficacious in removing ſpiritual as well as corporeal defilements; it muſt nevertheleſs be omitted by one who is afflicted with diſeaſe; and a healthy perſon is forbidden to bathe immediately after a meal, and without laying aſide his jewels and other ornaments. If there be no impediment, ſuch as thoſe now mentioned or formerly noticed, in ſpeaking of early ablutions he may bathe with water drawn from a well, from a fountain, or from a baſon of a cataract; but he ſhould prefer water which lays above ground, chooſing a ſtream rather than ſtagnant water, a river in preference to a ſmall brook, a holy ſtream before a vulgar river, and, above all, the water of the Ganges. In treating of the bath, authors diſtinguiſh various ablutions, properly and improperly ſo called, ſuch as rubbing the body with aſhes, which is named a bath ſacred to fire, plunging into water, a bath ſacred to the regent of this element: ablutions accompanied by the prayers, "O waters! "ſince ye afford delight, &c." which conſtitute the holy bath: ſtanding in duſt raiſed by the treading of cows, a bath denominated from wind or air; ſtanding in the rain during daylight, a bath named from the ſky or atmoſphere. The ablution or bath properly ſo called are performed with the following ceremonies.

After bathing and cleaning his perſon, and pronouncing as a vow, "I will now

now perform ablutions, he who bathes should invoke the holy river; "O Ganga, Yamuna, Saraswati, Satadru, Marudviáha, and Jiyiciya! hear my prayers; for my sake be included in this small quantity of water with the holy streams of Parushti Asieni, and Vitasta." He should also utter the radical prayer consisting of the words "Salutation to Náráyana." Upon this occasion a prayer extracted from the Padma purána is often used with this salutation called the radical text; and the ceremony is at once concluded by taking up the earth and pronouncing the subjoined prayers; "Earth, supporter of all things, trampled "by horses, traversed by cars, trodden by Vishnu! whatever sin has been com- "mitted by me, do thou, who art upheld by the hundred armed Crishna, in- "carnate in the shape of a boar, ascend my limbs, and remove every such "sin."

The text extracted from the Padma purána follows: "thou didst spring from "the foot of Vishnu daughter of Vishnu, honoured by him; therefore preserve "us from sin, protecting us from the day of our birth, even unto death. The "regent of air has named thirty-five millions of holy places in the sky, on earth, "and in the space between; they are all comprised in the daughter Jahnu. Thou "art called she, who promotes growth, among the gods: thou art named the "lotos; able, wife of Prithu, bird, body of the universe, wife of Siva, nectar, "female cherisher of science, cheerful, favouring worlds; merciful, daughter of "Jahnu, consoler, giver of consolation. Ganga, who flows through the three "worlds, will be near unto him, who pronounces these pure titles during his ab- "lution."

When the ceremony is preferred in its full detail, the regular prayer is a text of the véda. "Thrice did Vishnu step, and at three strides traversed the uni- "verse: happily was his foot placed on this dusty earth. Be this oblation effica- "cious!" By this prayer is meant, "May the earth, thus taken up, purify me." Cow dung is next employed with a prayer importing, "Since I take up cow "dung, invoking thereon the goddess of abundance, may I obtain prosperity!" the literal sense is this: "I here invoke that goddess of abundance, who is the "vehicle of smell, who is irresistible, ever white, present in this cow dung, mis- "tress of all beings, greatest of elements, ruling all the senses." Water is after- wards held up in the hollow of both hands joined, while the prayer denominated from the regent of water is pronounced: "Because Varuna, king of waters,

spread

ſpread a road for the ſun, therefore do I follow that route. Oh! he made that road in untrodden ſpace, to receive the footſteps of the ſun. It is he who reſtrains the heart-rending wicked." The ſenſe is, "Varuna, king of waters, who curbs the wicked, made an expanded road in the other real region to receive the rays of the ſun; I therefore follow that route." Next, previous to ſwimming, a ſhort prayer muſt be meditated: "Salutation to the regent of water! paſt are the fetters "of Varuna." This is explained as importing that the diſpleaſure of Varuna, at a man's traverſing the waters which are his fetters, is averted by ſalutation: ſwimming is therefore preceded by this addreſs. The prieſt ſhould next recite the invocation of holy rivers, and thrice throw water on his head from the hollow of both hands joined, repeating three ſeveral texts: 1ſt, "Waters! remove "this ſin, whatever it be, which is in me; whether I have done any thing ma-"licious towards others, or curſed them in my heart, or ſpoken falſehoods." 2d, "Waters! mothers of worlds! purify us; cleanſe us by the ſprinkled fluid, "ye who purify through libations; for, ye divine waters, do remove every ſin." 3d, "As a tired man leaves drops of ſweat at the foot of a tree, &c." Again, ſwimming and making a circuit through the ſouth, this prayer ſhould be recited: "May divine waters be auſpicious to us for accumulation, for gain, and "for refreſhing draughts: may they liſten to us, that we may be aſſociate with "good auſpices." Next reciting the following prayer the prieſt ſhould thrice plunge into water: "O conſummation of ſolemn rites! who doſt purify when "performed by the moſt grievous offenders; thou doſt invite the baſeſt criminals "to purification; thou doſt expiate the moſt heinous crimes. I atone for ſins "towards the gods by gratifying them with oblations and ſacrifice; I expiate ſins "towards mortals by employing mortal men to officiate at ſacraments. There-"fore defend me from the pernicious ſin of offending the gods."

Water muſt be next ſipped with the prayer, "Lord of ſacrifice, thy heart is "in the midſt of the waters of the ocean, &c." and the invocation of holy rivers is again recited. The prieſt muſt thrice throw up water with the three prayers, "O waters, ſince ye afford delight, &c." and again, with the three ſubjoined prayers; 1ſt, "May the Lord of thought purify me with an uncut blade "of cuſa graſs, and with the rays of the ſun. Lord of purity, may I obtain that "coveted innocence, which is the wiſh of thee, who is ſatisfied with this oblation "of water and of me, who am purified by this holy graſs." 2d, "May the Lord

"of

" of ſpeech purify me," &c." 3d, " May the reſplendent ſun purify me, &c." Thrice plunging into water, the prieſt ſhould as often repeat the grand expiatory text, of which Yajnyawálcyá ſays, " it compriſes the principles of things, and the " elements, the exiſtence of the (chaotick) maſs, the production and deſtruction " of worlds." This ſerves as a key to explain the meaning of the text, which being conſidered as the eſſence of the védas, is moſt myſterious. The author before me, ſeems to undertake the explanation of it with great awe, and intimates, that he has no other key to its meaning, nor the aid of earlier commentaries. " The " Supreme Being alone exiſted; afterwards there was univerſal darkneſs: next " the watery ocean was produced, by the diffuſion of virtue; then did the Crea- " tor, lord of the univerſe, riſe out of the ocean, and ſucceſſively frame the ſun and " moon, which govern day and night, whence proceeds the revolution of years; " and after them he framed heaven and earth, the ſpace between, and the celeſtial " region." The terms with which the text begins, both ſignify truth, but here explained as denoting the ſupreme Bráhme, on the authority of a text quoted from the véda; " Bráhme is truth, the one immutable being. He is truth and " everlaſting knowledge." ' During the period of general annihilation, ſays the ' commentator, the Supreme Being alone exiſted.' Afterwards, during that pe- ' riod, night was produced; in other words, there was univerſal darkneſs.' " This univerſe exiſted only in darkneſs, imperceptible, undefinable, undiſcoverable " by reaſon, and undiſcovered by revelation as if it were wholly immerſed in " ſleep." (Menu, ch. I. v. 5.) Next, when the creation began, the ocean was produced by an unſeen power univerſally diffuſed; that is, the element of water was firſt reproduced, as the means of the creation: " He firſt, with a thought, " created the waters, &c." (Menu, ch. I. v. 8.) Then did the Creator, when lord of the univerſe, riſe out of the waters. ' The lord of the univerſe, annihi- ' lated by the general deſtruction, revived with his own creation of the three ' worlds.' Heaven is here explained the expanſe of the ſky above the region of the ſtars. The celeſtial region is the middle world and heavens above. The author before me, has added numerous quotations on the ſublimity and efficacy of this text, which Menu compares with the ſacrifice of a horſe, in reſpect of its power to obliterate ſins.

After bathing, while he repeats this prayer, the prieſt ſhould again plunge into water, thrice repeating the text, " As a tired man leaves drops of ſweat at the " foot of a tree, &c." Afterwards, to atone for greater offences, he ſhould meditate the

the Gáyatri, &c. during three ſuppreſſions of breath. He muſt alſo recite it meaſure by meaſure, hemiſtich by hemiſtich; and, laſtly, the entire text without any pauſe. As an expiation of the ſin of eating with men of very low tribes, or of coveting or accepting what ſhould not be received, a man ſhould plunge into water, at the ſame time reciting a prayer which will be quoted on another occaſion. One who has drunk ſpirituous liquors ſhould traverſe water up to his throat, and drink as much expreſſed juice of the moon plant, as he can take up in the hollow of both hands, while he meditates the triliteral monoſyllable, and then plunge into water, reciting the ſubjoined prayer, "O Rudra! hunt not our offſpring "and deſcendants; abridge not the period of our lives; deſtroy not our cows; kill "not our horſes; ſlay not our proud and irritable folks; becauſe, holding oblations, "we always pray to thee."

Having finiſhed his ablutions, and coming out of the water, putting on his apparel after cleanſing it, having waſhed his hands and feet, and having ſipped water, the prieſt ſits down to worſhip in the ſame mode, which was directed after the early bath; ſubſtituting, however, the following prayer, in lieu of that which begins with the words, "May the ſun, ſacrifice, &c." "May the waters purify the "earth, that ſhe, being cleanſed, may purify me: may the lord of holy knowledge "purify her, that ſhe being cleanſed by holineſs, may purify me: may the waters "free me from every defilement, whatever be my uncleanneſs, whether I have "eaten prohibited food, done forbidden acts, or accepted the gifts, of diſhoneſt "men." Another difference between worſhip at noon and in the morning, conſiſts in ſtanding before the ſun with uplifted arms, inſtead of joining the hands in a hollow form. In all other reſpects the form of adoration is ſimilar.

Having concluded this ceremony, and walked in a round beginning through the ſouth, and ſaluted the ſun, the prieſt may proceed to ſtudy a portion of the véda. Turning his face towards the eaſt, with his right hand towards the ſouth, and his left hand towards the north, ſitting down with the cuſa graſs before him, holding two ſacred blades of graſs on the tips of his left fingers, and placing his right hand thereon, with the palm turned upwards, and having thus meditated the Gáyatri, the prieſt ſhould recite the proper text on commencing the lecture, and read as much of the védas as may be practicable for him, continuing the practice daily, until he have read the whole of the védas; and then recommencing the courſe.

Prayer on beginning a lecture of the Rigveda: "I praiſe the blazing fire, which

"is

"is firſt placed at religious rites, which effects the ceremony, for the benefit of the "votary, which performs the eſſential part of the rite, which is the moſt liberal "giver of gems."

On beginning a lecture of the Yajurveda: "I gather thee, O branch of the "véda, for the ſake of rain; I pluck thee for the ſake of ſtrength. Calves! ye "are like unto air; (that is, as wind ſupplies the world by means of rain, ſo do ye "ſupply ſacrifices by the milking of cows) May the luminous generator of "worlds, make you attain ſucceſs in the beſt of ſacraments."

On the beginning a lecture of the Samaveda: "Regent of fire, who doſt effect "all religious ceremonies, approach to taſte my offering; thou who art praiſed for "the ſake of oblations, ſit down on this graſs."

The text which is repeated on commencing a lecture of the Atharva véda has been already quoted on another occaſion: "May divine waters be auſpicious, to "us, &c."

In this manner ſhould a lecture of the védas, or of the védangas, of the ſacred poems and mythological hiſtory of law, and other branches of ſound literature, be conducted. The prieſt ſhould next proceed to offer barley, tila and water to the manes. Turning his face towards the eaſt, wearing the ſacrificial cord on his left ſhoulder, he ſhould ſit down and ſpread cuſa graſs before him with the tips pointing towards the eaſt. Taking grains of barley in his right hand, he ſhould invoke the gods. "O aſſembled gods! hear my call, ſit down on this graſs;" then throwing away ſome grains of barley, and putting one hand over the other, he ſhould pray in theſe words: "Gods! who reſide in the ethereal region, in the "world near us, and in heaven above; ye whoſe tongues are flame, and who ſave "all them who duly perform the ſacraments, hear my call, ſit down on this graſs, "and be cheerful." Spreading the cuſa graſs, the tips of which muſt point towards the eaſt, and placing his left hand thereon, and his right hand above the left, he muſt offer grains of barley and water from the tips of his fingers, (which are parts dedicated to the gods), holding three ſtraight blades of graſs, ſo that the tips be towards his thumb, and repeating this prayer: "May the gods be ſatisfied; "may the holy verſes, the ſcriptures, the devout ſages, the ſacred poems, the "teachers of them, and the celeſtial quiriſters, be ſatisfied; may other inſtructors, "human beings, minutes of time, moments, inſtants meaſured by the twinkling of "an eye, hours, days, fortnights, months, ſeaſons, and years, with all their compo-

" nent parts be ſatisfied herewith *." Next, wearing the ſacrificial thread round his neck, and turning towards the north, he ſhould offer tila, or grains of barley with water, from the middle of his hand (which is a part dedicated to human beings), holding in it cuſa graſs, the middle of which muſt reſt on the palm of his hand: this oblation he preſents on graſs, the tips of which are pointed towards the north; and with it he pronounces theſe words; " May Sanaca be ſatisfied; " may Samandana, Sanatana, Capila, Aſuri, Bodhu, and Parchaſicha, be ſatisfied " herewith." Placing the thread, &c. on his right ſhoulder, and turning towards the ſouth, he muſt offer tila and water from the root of his thumb (which is a part ſacred to the progenitors of mankind), holding bent graſs thereon; this oblation he ſhould preſent upon a veſſel of rhinoceros' horn placed on graſs, the tips of which are pointed towards the ſouth; and with it he ſays, " May fire, which re- " ceives oblations, preſented to our forefather, be ſatisfied herewith; may the moon, " the judge of departed ſouls, the ſun, the progenitors who are purified by fire, " thoſe who are named from their drinking the juice of the moon plant, and thoſe " who are denominated from ſitting on holy graſs, be ſatisfied herewith!" He muſt then make a ſimilar oblation, ſaying, " May Nârâs'arya, Pârâs'arya, S'uca, " Sácalya, Yaj'nyawalcya, Játucarn'a, Cátyâyana, Apaſtamba, Baud'hyana, Vácha- " cut'í, Vacjavápí, Húhú, Lócácſhí, Maitráyan'í, and Aindráyan'í, be ſatisfied here- " with." He afterwards offers three oblations of water mixed with tila, from the hollow of both hands joined, and this he repeats fourteen times with the different titles of Yama, which are conſidered as fourteen diſtinct forms of the ſame deity. " Salutation to Yama, ſalutation to Dhermaraja, or the king of deities, to death, to " Antaca or the deſtroyer, to Vaivaſwata or the child of the ſun, to time, to the " ſlayer of all beings, to Audhumbára or Yama ſpringing out of the racemiferous " fig tree, to him who reduces all things to aſhes, to the dark-blue deity, to him " who reſides in the ſupreme abode, to him whoſe belly is like that of a wolf, to " the variegated being, to the wonderful inflictor of pains." Taking up grains of tila, and throwing them away while he pronounces this addreſs to fire: " Ea- " gerly we place and ſupport thee; eagerly we give thee fuel; do thou fondly " invite the progenitors, who love thee, to taſte this pious oblation." Let him invoke the progenitors of mankind in theſe words: " May our progenitors, who

* The verb is repeated with each term, " May the holy verſes be ſatisfied; may the vedas be ſatisfied, &c."

" are

" are worthy of drinking the juice of the moon plant, and they who are purified " by fire, approach us through the paths which are travelled by gods; and pleaſed " with the food preſented at the ſacrament, may they aſk for more, and preſerve " us from evil." He ſhould then offer a triple oblation of water with both hands, reciting the following text, and ſaying, " I offer this tila and water to my father, " ſuch a one ſprung from ſuch a family." He muſt offer ſimilar oblations to his paternal grandfather, great-grandfather; and another ſet of ſimilar oblations to his maternal grandfather, and to the father and grandfather of that anceſtor; a ſimilar oblation muſt be preſented to his mother, and ſingle oblations to his paternal grandmother and great-grandmother: three more oblations are preſented, each to three perſons, paternal uncle, brother, ſon, grandſons, daughter's ſon, ſon-in-law, maternal uncles, ſiſter's ſon, father's ſiſter's ſon, mother's ſiſter, and other relations. The text alluded to bears this meaning: " Waters be the food of our progenitors; " ſatisfy my parents, ye who convey nouriſhment, which is the drink of immor- " tality, the fluid of libations, the milky liquor, the confined and promiſed food of " the manes."

The ceremony may be concluded with three voluntary oblations; the firſt preſented like the oblations to deities, looking towards the eaſt, and with the ſacrificial cord placed on his left ſhoulder. The ſecond like that offered to progenitors, looking towards the ſouth, and with the ſtring paſſed over his right ſhoulder. The prayers which accompany theſe offerings are ſubjoined: 1ſt. " May the " gods, demons, benevolent genii, huge ſerpents, heavenly quiriſters, fierce " giants, blood thirſty ſavages, unmelodious guardians of the celeſtial treaſure, " ſucceſsful genii, ſpirits called Cuſhmanda, trees, and all animals, which move " in air or in water, which live on earth, and feed abroad, may all theſe quickly " obtain contentment, through the water preſented by me." 2nd. " To ſatisfy " them who are detained in all the hells and places of torment, this water is pre- " ſented by me." 3d. " May thoſe, who are, and thoſe who are not, of kin to " me, and thoſe who are allied to me in a former exiſtence, and all who deſire " oblations of water from me, obtain perfect contentment." The firſt text which is taken from the *Samaveda* differs a little from the *Yajurveda*. " Gods, benevo- " lent genii, huge ſerpents, nymphs, demons, wicked beings, ſnakes, birds of " mighty wing, trees, giants; and all who traverſe the ethereal region, genii " who cheriſh ſcience, animals that live in water or traverſe the atmoſphere, crea- " tures that have no abode, and all living animals which exiſt in ſin or in the

" practice

"practice of virtue; to ſatisfy them is this water preſented by me." Afterwards, the prieſt ſhould wring his lower garment, pronouncing this text: "May thoſe "who have been born in my family, and have died, leaving no ſon nor kinſman, "bearing the ſame name, be contented with this water which I preſent by wring-"ing it from my veſture." Then placing his ſacrificial cord on his left ſhoulder, ſipping water, and raiſing up his arms, let him contemplate the ſun, reciting a prayer inſerted above: "He who travels the appointed path, &c." The prieſt ſhould afterwards preſent an oblation of water to the ſun, pronouncing the text of the Viſhnu purána which has been already cited, "Salutation to the ſun," &c. He then concludes the whole ceremony by worſhipping the ſun with a prayer above quoted: "Thou art ſelf-exiſtent," &c, by making a circuit through the ſouth while he pronounces, "I follow the courſe of the ſun;" and by offering water from the hollow of his hand while he ſalutes the regents of ſpace and other Deities. "Salutation to ſpace; to the regents of ſpace, to Bráhma, to the earth, "to ſalutary herbs, to fire, to ſpeech, to the lord of ſpeech, to the pervader, and "to the mighty Deity."

C. E. CARRINGTON, Esq.

Secretary to the Aſiatick Society.

THE ſacrifice of human and other victims, and the ſacrificial rites celebrated by the Hindus, having being repreſented to me as a ſubject of curious inveſtigation, which, from a compariſon with the ceremonies uſed on ſimilar occaſions, by other ancient nations, might perhaps be intereſting, as well to the Society, as to the learned in Europe, I procured the Calica Puran, in which I was given to underſtand, I ſhould meet with full information on the ſubject. To effect this purpoſe, I tranſlated the Rudhirádhyáyă or ſanguinary chapter, which treats of human, as well as of other ſacrifices, in which blood is ſhed. I hope alſo in my next communication, to lay before the Society, a full account of the Goddeſs Cali,

Cali, to whom theſe ſacrifices are made, and of the Bhairăvăs, ſons of Siva, to two of whom the chapter is addreſſed by Siva.

I am, &c. &c. &c.

W. C. BLAQUIERE.

Calcutta, Auguſt 15th, 1796.

XXIII.

THE RUDHIRA'DHYA'Y.Å, OR SANGUINARY CHAPTER; TRANSLATED FROM THE CALICA PURAN.

By W. C. BLAQUIERE, *Eſq.*

SALUTATION TO CALICA.

[*Shivă addreſſes Betál, Bhairăva, and Bhairăvă.*]

I WILL relate you, my ſons, the ceremonies and rules to be obſerved in ſacrifices, which being duly attended to are productive of the divine favour.

The forms laid down in the vaiſhnăivi Tăntră, are to be followed on all occaſions, and may be obſerved by ſacrificers to all Deities.

Birds, tortoiſes, allegators, fiſh, nine ſpecies of wild animals, buffaloes, bulls, hegoats, ichneumons, wild boars, rhinoceroſes, antelopes, guanas, rein-deer, lions, tygers, men, and blood drawn from the offerer's own body, are looked upon as proper oblations to the Goddeſs Chandica, the Bhairăvăs, &c.

It is through ſacrifices that princes obtain bliſs, heaven, and victory over their enemies.

The pleaſure which the Goddeſs receives from an oblation of the blood of fiſh and tortoiſes is of one month's duration, and three from that of a crocodile. By the blood of the nine ſpecies of wild animals, the Goddeſs is ſatisfied nine months, and for that ſpace of time continues propitious to the offerer's welfare. The blood of the wild bull and guana gives pleaſure for one year, and that of the antelope and

wild

wild boar for twelve years. The Sărăbhă's * blood satisfies the Goddeſs for twenty-five years, and buffalo's and rhinoceros's blood for a hundred, and that of the tyger an equal number. That of the lion, rein-deer and the human ſpecies produces pleaſure, which laſts a thouſand years. The fleſh of theſe, ſeverally, gives the Goddeſs pleaſure for the ſame duration of time as their blood. Now attend to the different fruits attending an offering of the flesh of a rhinoceros or antelope, as alſo of the fiſh called rohita.

The fleſh of the antelope and rhinoceros pleaſes the Goddeſs five hundred years, and the rohita fiſh and Bardhrinaſa give my beloved (i. e. the Goddeſs Cali) delight for three hundred years.

A ſpotleſs goat, who drinks only twice in twenty-four hours, whoſe limbs are ſlender, and who is the prime among a herd, is called a Bardhrinaſa, and is reckoned as the beſt of Hăvyăs, (i. e. offerings to the Deities), and Căvyăs, (i. e. offerings to deceaſed progenitors.)

The bird whoſe throat is blue and head red and legs black with white feathers, is called alſo Bardhrinaſa, and is king of the birds, and the favourite of me and Viſhu.

By a human ſacrifice attended by the forms laid down, Devi is pleaſed one thouſand years, and by a ſacrifice of three men, one hundred thouſand years. By human fleſh, Cámác'hyá, Chăndicá, and Bhairăvă who aſſumes my ſhape, are pleaſed one thouſand years. An oblation of blood which has been rendered pure by holy texts, is equal to ambroſia; the head and fleſh alſo afford much delight to the Goddeſs Chăndicá. Let therefore the learned, when paying adoration to the Goddeſs, offer blood and the head, and when performing the ſacrifice to fire, make oblations of fleſh.

Let the performer of the ſacrifice be cautious never to offer bad fleſh, as the head and blood are looked upon by themſelves equal to ambroſia.

The gourd, ſugar cane, ſpirituous liquors, and fermented liquors are looked upon as equivalent to other offerings, and pleaſe the Goddeſs for the ſame duration of time as the ſacrifice of a goat.

The performance of the ſacrifice, with a Chăndra-háſá, or cătri (two weapons of the ax kind) is reckoned the beſt mode, and with a hatchet or knife, or ſaw, or

* Sarabhas, an animal of a very fierce nature, ſaid to have eight feet.

a ſangeul,

a ſangeul, the ſecond beſt, and the beheading with a hoe a Bhăllăc (an inſtrument of the ſpade kind), the inferior mode.

Excluſive of theſe weapons, no others of the ſpear or arrow kind ought ever to be uſed in performing a ſacrifice, as the offering is not accepted by the Goddeſs, and the giver of it dies. He who, with his hands, tears off the head of the conſecrated animal, or bird, ſhall be conſidered equally guilty with him who has ſlain a Bráhmen, and ſhall undergo great ſufferings.

Let not the learned uſe the ax, before they have invoked it by holy texts, which have been mentioned heretofore, and framed by the learned for the occaſion: let thoſe I now tell you, be joined to them and the ax invoked, and particularly ſo, where the ſacrifice is to be made to the Goddeſſes Durgá, and Cámác'hyá.

Let the ſacrificer repeat the word Cáli twice, then the words Devi Băjreſwari, then Lawhă Dăndáyai, Namah! which words may be rendered Hail! Cali, Cali! Hail! Devi! goddeſs of thunder, Hail iron ſceptered Goddeſs! Let him then take the ax in his hand, and again invoke the ſame by the Cálratriyă text as follows.

Let the ſacrificer ſay Hrang Hring. Cali, Cali! O horrid toothed Goddeſs; eat, cut, deſtroy all the maglignant, cut with this ax; bind, bind; ſeize, ſeize; drink blood; ſpheng, ſpheng; ſecure, ſecure. Salutations to Cali. Thus ends the Calratriyă Măntra.

The Charga (the ax) being invoked by this text called the Cálratriyă Măntră, Cálrátri (the Goddeſs of darkneſs) herſelf preſides over the ax uplifted for the deſtruction of the ſacrificer's enemies.

The ſacrificers muſt make uſe of all the texts directed previous to the ſacrifice, and alſo of the following, addreſſing himſelf to the victim.

Beaſts were created by the ſelf-exiſting, himſelf to be immolated at ſacrifices: I therefore immolate thee, without incurring any ſin in depriving thee of life.

Let the ſacrificer then name the Deity to whom the ſacrifice is made, and the purpoſe for which it is performed; and by the above text immolate the victim, whoſe face is to be towards the north, or elſe let the ſacrificer turn his own face to the north, and the victim's to the eaſt. Having immolated the victim, let him without fail mix ſalt, &c. as before mentioned with the blood.

The veſſel in which the blood is to be preſented, is to be according to the circumſtances of the offerer, of gold, ſilver, copper, braſs, or leaves ſewed together, or of earth, or of tutenague, or of any of the ſpecies of wood uſed in ſacrifices.

Let

Let it not be preſented in an iron veſſel, nor in one made of the hide of an animal, or the bark of a tree; nor in a pewter, tin, or leaden veſſel. Let not the blood be repreſented in the holy veſſel named ſrub and ſruch, nor on the ground. Let it not be preſented in the Ghătă (i. e. an earthen jar always uſed in other religious ceremonies.) Let it not be preſented by pouring it on the ground, or into any of the veſſels uſed at other times for offering food to the Deity. Let not the good man who wiſhes for proſperity, offer the blood in any of theſe veſſels. Human blood muſt always be preſented in a metallic or earthen veſſel; and never on any account in a veſſel made of leaves, or ſimilar ſubſtance.

The offering a horſe, except at the Aſwamedha ſacrifice, is wrong, as alſo offering an elephant, except at the Găjă Medha; let therefore the ruler of men obſerve never to offer them except on thoſe occaſions. And on no account whatſoever let him offer them to the Goddeſs Devi, uſing the wild bull called Chánrără as a ſubſtitute for the horſe, when the occaſion requires one.

Let not a Bráhmen ever offer a lion or a tyger, or his own blood, or ſpirituous liquors to the Goddeſs Devi. If a Bráhmen ſacrifices either a lion, a tyger, or a man, he goes to hell, and paſſes but a ſhort time in this world attended with miſery and misfortune.

If a Bráhmen offers his own blood, his guilt is equal to that of the ſlayer of a Bráhmen; and if he offers ſpirituous liquors, he is no longer a Bráhmen.

Let not a Cſhectree offer an antelope; if he does, he incurs the guilt of a Bráhmen ſlayer: where the ſacrifice of lions, of tygers, or of the human ſpecies is required, let the three firſt claſſes act thus; having formed the image of the lion, tyger, or human ſhape with butter, paſte, or barley meal, let them ſacrifice the ſame, as if a living victim, the ax being firſt invoked by the text Nŏmō, &c.

Where the ſacrifice of a number of animals is to take place it is ſufficient to bring and preſent two or three to the Deity, which ſerves as a conſecration of the whole. I have now related to you, O Bhairăvă, in general terms, the ceremonies and forms of ſacrifices: attend now to the different texts to be uſed on the ſeveral different occaſions.

When a buffalo is preſented to Devi, Bhaivaree, or Bhairăvi, let the ſacrificer uſe the following Măntră in invoking the victim.

"In the manner that thou deſtroyeſt horſes, in the manner that thou carrieſt "Chăndicá, deſtroy my enemies, and bear proſperity to me, O buffalo.

"O ſteed

" O ſteed of death, of exquiſite and unperiſhable form, produce me long life and " fame. Salutation to thee, O buffalo!"

Let him then addreſs the Charga (ax), calling it Guhâ Játă, i. e. the cavern born, and beſprinkle it with water, ſaying, " Thou art the inſtrument uſed in ſacrifices " to the gods and anceſtors, O ax! of equal might with the wild rhinoceros, cut " aſunder my evils. O cavern-born! ſalutation to thee again and again."

At the ſacrifice of an antelope, the following Măntră is to be uſed:

" O antelope! repreſentative of Bráhma, the emblem of his glory, thou who " art even as the fond védas, and learned, grant me extenſive wiſdom and cele- " brity."

At the ſacrifice of a Sárăbhă, let the following Măntră be uſed. O *eight*-footed " animal! O ſportful native of the Chăndră Bhăgă mountains! thou eight-formed " long-armed animal *; thou who art called Bhairăvă: ſalutation to thee again and " again! aſſume the terrifick form, under which thou deſtroyeſt the wild boar, and " in the ſame manner deſtroy my enemies."

At the ſacrifice of a lion: " O Heri, who, in the ſhape of a lion beareſt Chăndicá, " bear my evils and avert my misfortunes. Thy ſhape, O lion! was aſſumed by " Heri, to puniſh the wicked part of the human race, and under that form, by " truth, the tyrant Hirănyă Căſipu was deſtroyed." I have now related to thee, O Bhairăvă, who art void of ſin, the mode of paying adoration to the lion.

Now attend to the particulars relative to the offering of human blood.

Let a human victim be ſacrificed at a place of holy worſhip, or at a cemetery where dead bodies are buried. Let the oblation be performed in the part of the cemetery called Heruca, which has been already deſcribed, or at a temple of Cá- mác'hyá, or on a mountain. Now attend to the mode.

The cemetery repreſents me, and is called Bhairăvă, it has alſo a part called Tăntrángă; the cemetery muſt be divided into theſe two diviſions, and a third called Heruca.

The human victim is to be immolated in the eaſt diviſion, which is ſacred to Bhairăvă; the head is to be preſented in the ſouth diviſion, which is looked upon as the place of ſculls ſacred to Bhairăví, and the blood is to be preſented in the weſt diviſion, which is denominated Heruca.

* A mark of eminence.

Having immolated a human victim, with all the requiſite ceremonies at a cemetery or holy place, let the ſacrificer be cautious not to caſt eyes upon the victim.

On other occaſions alſo, let not the ſacrificer caſt eyes upon the victim immolated, but preſent the head with eyes averted.

The victim muſt be a perſon of good appearance, and be prepared by ablutions, and requiſite ceremonies, ſuch as eating conſecrated food the day before, and by abſtinence from fleſh and venery; and muſt be adorned with chaplets of flowers and beſmeared with ſandal wood.

Then cauſing the victim to face the north, let the ſacrificer worſhip the ſeveral deities, preſiding over the different parts of the victim's body: let the worſhip be then paid to the victim himſelf by his name.

Let him worſhip Bráhma in the victim's Bráhma Rhandra, i. e. cave of Bráhma, cavity in the ſkull, under the ſpot were the ſaturæ coronalis and ſagittalis meet*. Let him worſhip the earth in his noſe, ſaying, Medinyaih nămăh, and caſting a flower; in his ears, ácásă, the ſubtil ether, ſaying, ácásáyă nămăh; in his tongue, ſarvata muc'ha, (i. e. Bráhma Agni, &c. the regents of ſpeech, &c.) ſaying ſarvata muc'hăya nămăh; the different ſpecies of light in his eyes, and Viſhnu in his mouth. Let him worſhip the moon on his forehead, and Indra on his right cheek, fire on his left cheek, death on his throat, at the tips of his hair the regent of the ſouth-weſt quarter, and Varuna between the eye-brows; on the bridge of the noſe let him pay adoration to wind, and on the ſhoulders to Dhănefwără, (i. e. god of riches), then worſhipping the sărpă rájà, (i. e. king of ſerpents), on the ſtomach of the victim, let him pronounce the following Măntră:

"O beſt of men! O moſt auſpicious! O thou who art an aſſemblage of all "the deities, and moſt exquiſite! beſtow thy protection on me, ſave me, thy "devoted, ſave my ſons, my cattle, and kindred; preſerve the ſtate, the mi-"niſters belonging to it, and all friends; and as death is unavoidable, part "with (thy organs of) life, doing an act of benevolence. Beſtow upon me, O "moſt auſpicious! the bliſs which is obtained by the moſt auſtere devotion, by "acts of charity and performance of religious ceremonies; and at the ſame time, "O moſt excellent! attain ſupreme bliſs thyſelf. May thy auſpices, O moſt "auſpicious! keep me ſecure from Rácſhaſas, Piſachos, terrors, ſerpents, bad

* This is done by caſting a flower there, ſaying, Brahmaye namah; ſalutation to Brahma.

"princes,

"princes, enemies, and other evils; and death being inevitable, charm Bhágavati in thy laſt moments by copious ſtreams of blood ſpouting from the arteries of thy fleſhy neck."

Thus let the ſacrificer worſhip the victim, adding whatever other texts are applicable to the occaſion, and have been before mentioned.

When this has been done, O my children! the victim is even as myſelf, and the guardian deities of the ten quarters take place in him; then Bráhma and all the other deities aſſemble in the victim, and be he ever ſo great a ſinner, he becomes pure from ſin, and when pure, his blood changes to ambroſia, and he gains the love of Méhadévi, the Goddeſs of the Yog Niddrá, (i. e. the tranquil repoſe of the mind from an abſtraction of ideas); who is the Goddeſs of the whole univerſe, the very univerſe itſelf. He does not return for a conſiderable length of time in the human form, but becomes a ruler of the Gănă Devătăs, and is much reſpected by me myſelf. The victim who is impure from ſin or ordure and urine, Cámác'hyá will not even hear named.

By the repetitions of the texts, and forms laid down for the ſacrifice of buffalos, and other animals, their bodies become pure and their blood acceptable to the Goddeſs Shívá.

On occaſions of ſacrifices to other deities alſo, both the deities and victims muſt be worſhipped, previous to the immolation.

The blind, the crippled, the aged, the ſick, the afflicted with ulcers, the hermaphrodite, the imperfectly formed, the ſcarred, the timid, the leprous, the dwarfiſh, and the perpetrator of méhá pataca (heinous offences, ſuch as ſlaying a Bráhmen, drinking ſpirits, ſtealing gold, or defiling a ſpiritual teacher's bed), one under twelve years of age, one who is impure from the death of a kinſman, &c. one who is impure from the death of méhá guru, (father and mother), which impurity laſts one whole year: theſe ſeverally are unfit ſubjects for immolation, even though rendered pure by ſacred texts.

Let not the female, whether quadruped or bird, or a woman, be ever ſacrificed; the ſacrificer of either will indubitably fall into hell; where the victim of either the beaſts or birds creation, are very numerous, the immolation of a female is excuſeable; but this rule does not hold good, as to the human ſpecies.

Let not a beaſt be offered under three months old, or a bird who is under three paćſha (forty-five days). Let not a beaſt or bird who is blind, deficient in a limb, or ill-formed, be offered to Dévi, nor one who is in any reſpect unfit, from the reaſons

reaſons which have been ſet forth, when ſpeaking of the human race: let not animals and birds with mutilated tails, or ears, or broken teeth, or horns, be preſented on any account.

Let not a Bráhmen or a Chandala be ſacrificed; nor a prince; nor that which has been already preſented to a Bráhmen, or a deity; nor the offſpring of a prince, nor one who has conquered in battle; nor the offſpring of a Bráhmen, or of a Cſhettree; nor a childleſs brother, nor a father, nor a learned perſon, nor one who is unwilling, nor the maternal uncle of the ſacrificer. Thoſe not here named, and animals, and birds of unknown ſpecies, are unfit. If theſe named are not forthcoming, let their place be ſupplied by a male aſs or camel. If other animals are forthcoming, the ſacrifice of a tyger, camel, or aſs, muſt be avoided.

Having firſt worſhipped the victim, whether human, beaſt, or bird, as directed, let the ſacrificer immolate him, uttering the Măntră directed for the occaſion, and addreſs the deity with the text laid down before.

Let the head and blood of a human victim be preſented on the right ſide of Devi, and the ſacrificer addreſs her ſtanding in front. Let the head and blood of a goat be preſented on the left, and the head and blood of a buffalo in front. Let the head and blood of birds be preſented on the left, and the blood of a perſon's own body in front. Let the ambroſia proceeding from the heads of carnivorous animals and birds be preſented on the left hand, as alſo the blood of all aquatick animals.

Let the antelope's head and blood, and that of the tortoiſe, rhinoceros, and hare, and crocodile, and fiſh, be preſented in front.

Let a lion's head and blood, be preſented on the right hand, and the rhinoceros's alſo; let not, on any account, the head or blood of a victim ever be preſented behind the Deity, but on the right, left, and in front.

Let the conſecrated lamp, be placed either on the right hand, or in front, but on no account, on the left. Let incenſe be burnt on the left, and in front, but not on the right hand. Let perfumes, flowers, and ornaments, be preſented in front; with reſpect to the different parts of the circle, where to preſent the offerings, the mode already laid down may be obſerved. Let Mădirá (ſpirituous liquor) be preſented behind other liquids on the left.

Where it is abſolutely neceſſary to offer ſpirits, let the three firſt claſſes of men ſupply their place, by cocoanut juice in a braſs veſſel, or honey in a copper one. Even in a time of calamity, let not a man of the three firſt claſſes, offer ſpirituous liquor,

liquor, except that made from flowers, or ſtewed diſhes. Let princes, miniſters of ſtate, counſellors, and venders of ſpirituous liquors, make human ſacrifices, for the purpoſe of attaining proſperity and wealth.

If a human ſacrifice is performed, without the conſent of the prince, the performer incurs ſin. In caſes of imminent danger or war, ſacrifices may be performed at pleaſure, by princes themſelves and their miniſters, but by none elſe.

The day previous to a human ſacrifice, let the victim be prepared by the text Mánaſtăc, and three Devi Gandhă Suctăhs, and the texts wádrăng; and by touching his head with the ax, and beſmearing the ax with ſandal, &c. perfumes, and then taking ſome of the ſandal, &c. from off the ax, and beſmearing the victim's neck therewith.

Then let the text Ambé A'mbicé, &c. and the Rowdră and Bhairăvă texts be uſed, and Dévi herſelf will guard the victim who, when thus purified, malady does not approach him, nor does his mind ſuffer any derangement from grief and ſimilar cauſes, nor does the death or birth of a kinſman render him impure.

Now liſten to the good and bad omens, to be drawn from the falling of the head, when ſevered from the body.

If the head falls towards the north-eaſt, or ſouth-weſt, the prince of the country and offerer of the ſacrifice will both periſh.

If the human head, when ſevered from the body, falls in the following quarters, the following omens are to be drawn.

If in the eaſt, wealth; if in the ſouth-weſt, power; if in the ſouth, terror; if in the weſt, profit; if in the north-weſt, a ſon; if in the north, riches.

Liſten now to the omens to be drawn from the falling of the head of a buffalo, when ſevered from the body.

If in the north, property; the north-eaſt, loſs; in the eaſt, dominion; ſouth-eaſt, wealth; the ſouth, victory over enemies; if in the ſouth-weſt, fear; if in the weſt, attainment of kingdom, if the north-eaſt, proſperity: this rule, O Bhairăvă! holds good for all animals, but not for aquatick or oviparous creatures.

If the heads of birds, or fiſhes, fall in the ſouth, or ſouth-eaſt, quarter, it indicates fear, and if any of the other quarters, proſperity.

If a noiſe, proceeding from the chattering of the teeth of the victim's ſevered head, or ſnapping of the beak, is perceptible, it indicates alarm. If tears proceed from the eyes of a human victim's ſevered head it indicates deſtruction to the prince.

If

If tears proceed from the ſevered head of a buffalo at the time of preſenting it, it indicates that ſome foreign inimical prince will die. If tears proceed from the eyes of other animals, they indicate alarm, or loſs of health.

If the ſevered head of a human victim ſmiles, it indicates increaſe of proſperity, and long life to the ſacrificer, without doubt; and if it ſpeak, whatever it ſays will come to paſs.

If the ſound Hoonh proceeds from the human victim's ſevered head, it indicates that the prince will die; if phlegm, that the ſacrificer will die. If the head utters the name of a deity, it indicates wealth to the ſacrificer within ſix months.

If at the time of preſenting the blood, the victim diſcharge fæces or urine, or turns about, it indicates certain death to the ſacrificer; if the victim kicks with his left leg, it indicates evil, but a motion of his legs in any other mode indicates proſperity.

The ſacrificer muſt take ſome blood between his thumb and third finger, and diſcharge it towards the ſouth-weſt on the ground, as an offering to the deities, accompanied by the Mehă Cawſici Măntră.

Let the victim offered to Devi, if a buffalo, be five years old, and if human twenty-five.

Let the Cawſici* Măntră be uttered, and the ſacrificer ſay Eſhă bălı Sevăhă, "Myſterious praiſe to this victim."

A prince may ſacrifice his enemy, having firſt invoked the ax with holy texts, by ſubſtituting a buffalo or goat, calling the victim by the name of the enemy throughout the whole ceremony.

Having ſecured the victim with cords, and alſo with ſacred texts, let him ſtrike off the head, and preſent it to Devi, with all due care. Let him make theſe ſacrifices in proportion to the increaſe or decreaſe of his enemies, lopping off the heads of victims for the purpoſe of bringing deſtruction on his foes, infuſing, by holy texts, the ſoul of the enemy into the body of the victim, which will, when immolated, deprive the foe of life alſo.

Let him firſt ſay, "O Goddeſs of horrid form, O Chándică! eat, devour, "ſuch a one, my enemy, O conſort of fire! Salutation to fire! This is the "enemy who has done me miſchief, now perſonated by an animal: deſtroy him,

* The Cawſici Mantra: "Hail Cawſici! three-eyed Goddeſs; of moſt terrifying appearance, around whoſe neck "a ſtring of human ſkulls is pendant, who art the deſtroyer of evil ſpirits, who art armed with an ax, the foot of a bed "and a ſpear, Rhing Cawſici. Salutation to thee with this blood."

"O Mahamari!

"O Mahamari! Spheng! ſpheng! eat, devour." Let him then place flowers upon the victim's head. The victim's blood muſt be preſented with the Măntră of two ſyllables.

If a ſacrifice is performed in this manner on the Mehanawami (the ninth of the moon in the month of Aſſim), let the homa, (i. e. oblation to fire), be performed with the fleſh of the victim.

Uſing the texts which are laid down in the Durga Tantra and purified fire, let the Homa be performed after the ſacrifice, and it will procure the death of foes.

Let not any one preſent blood drawn from any part of the body below the navel, or from the back. Let not blood drawn from the lips, or chin, or from any limb, be preſented. Blood drawn from any part of the body, between the neck and navel, may be preſented, but violent inciſions for the purpoſe of obtaining it, muſt not be made.

Blood drawn from the cheeks, forehead, between the eye brows, from the tips of the ears, the arms, the breaſts, and all parts between the neck and navel, as alſo from the ſides, may be preſented.

Let not blood drawn from the ankles, or knees, or from parts of the body which branch out, be preſented, nor blood which has not been drawn from the body for the expreſs purpoſe of being offered.

The blood muſt be drawn for the expreſs purpoſe of an oblation, and from a man pure in body and mind, and free from fear: it muſt be caught in the petal of a lotos, and preſented. It may be preſented in a gold, ſilver, braſs, or iron veſſel, with the due form, and texts recited.

The blood, if drawn by an inciſion made with a knife, ax, or ſangcul, gives pleaſure, in proportion to the ſize of the weapon.

The ſacrificer may preſent one fourth of the quantity which a lotos petal will contain, but he muſt not give more on any account; nor cut his body more than is neceſſary. He who willingly offers the blood of his body and his own fleſh, the ſize of a grain of linſeed, maſha, tila, or mudya, with zeal and fervency, obtains what he deſires in the courſe of ſix months.

Now attend to the fruits obtained by offering the burning wick of a lamp placed upon the arms, ears, or breaſt, even for a ſingle moment. He who applies the ſame obtains happineſs and great poſſeſſions; and for three Călpăs is even as the body of Dévi herſelf; after which he becomes a ruler of the univerſe.

He who, for a whole night, ſtands before the Goddeſs Sívă, holding the head

of

of a ſacrificed buffalo in his hands, with a burning lamp placed between the horns, obtains long life and ſupreme felicity in this world, and in the other reſides in my manſion, holding the rank of a ruler in the Ganadevatas.

He who, for a ſingle cſhana, (a ſhort ſpace of time), holds the blood which proceeds from a victim's head in his hands, ſtanding before the Goddeſs in meditation, obtains all that he deſires in this world, and ſupremacy in the Dévi Loe.

Let the learned when he preſents his own blood, uſe the following text followed by the Mula Măntră, or principal text uſed in the worſhip of the Goddeſs Dévi, under the form which ſhe is at that time addreſſed:

"Hail! ſupreme deluſion! Hail! Goddeſs of the univerſe! Hail! thou who "fulfilleſt the deſires of all. May I preſume to offer thee, the blood of my body; "and wilt thou deign to accept it, and be propitious towards me."

Let the following text be uſed, when a perſon preſents his own fleſh:

"Grant me, O Goddeſs! bliſs, in proportion to the fervency with which I "preſent thee with my own fleſh, invoking thee to be propitious to me. Salu- "tation to thee again and again, under the myſterious ſyllables hoong hoong."

When the wick of a lamp is applied burning to the body the following text is to be uſed:

"Hail! Goddeſs! Salutation to thee, under the ſyllables, hōng hōng. To "thee I preſent this auſpicious luminary, fed with the fleſh of my body, enlight- "ening all around, and expoſing to light alſo, the inward receſſes of my ſoul."

On the autumnal Meha Navami, or when the moon is in the lunar manſion Scanda or Biſhácá, let a figure be made, either of barley meal or earth, repreſenting the perſon with whom the ſacrificer is at variance, and the head of the figure be ſtruck off; after the uſual texts have been uſed, the following text is to be uſed in invoking an ax on the occaſion:

"Effuſe, effuſe blood; be terrifick, be terrifick; ſeize, deſtroy, for the love of Ambicá, the head of this enemy."

Having ſtruck off the head, let him preſent it, uſing the texts laid down hereafter for the occaſion, concluding with the word phat. Water muſt be ſprinkled upon the meal, or earthen victim, which repreſents the ſacrificer's enemy, uſing the text commencing with răcta drăbaih, (i. e. by ſtreams of blood), and marks muſt be made on the forehead with red ſanders: garlands of red flowers muſt be put round the neck of the image, and it muſt be dreſſed in red garments, and tied with red cords, and girt with a red girdle. Then placing the head towards the north,

north, let it be ſtruck off with an ax, and preſented, uſing the Scănda text. This is to be uſed at preſenting the head, if the ſacrifice is performed on the night of the Scănda Năcſhătra, or lunar manſion Scănda. The Visác'hă Măntră, is to be uſed on the night the Visác'hă manſion. Let the ſacrificer contemplate two attendants on the Goddeſs, as having fiery eyes, with yellow bodies, red faces, long ears, armed with tridents and axes in their two right hands, and holding human ſculls and vaſes in their two left. Let them be conſidered as having three eyes and ſtrings of human ſculls, ſuſpended round their necks, with long ſtraggling frightful teeth.

In the month of Chaitra, on the day of the full moon, ſacrifices of buffalos and goats give unto me of horrid form much pleaſure; as do alſo honey and fiſh, "O "my ſons!"

Where a ſacrifice is made to Chándică, the victim's head having been cut off, muſt be ſprinkled with water, and afterwards preſented with the texts laid down.

The ſacrificer may draw an augury from the motions of the ſlain victim when near expiring, and for ſo doing he muſt firſt addreſs the Goddeſs, conſidering the ſoul of the victim as taking its departure in a car, and his body as a holy ſpot, "O Goddeſs! make known unto me, whether the omens are favourable or "not."

If the head of the ſlain victim, does not move ſome time after this, the ſacrificer may look upon the circumſtance as a good omen, and if the reverſe, as a bad one.

He who performs ſacrifices according to theſe rules, obtains his wiſhes to the umoſt extent.

Thus are the rules and forms of ſacrifice, laid down and communicated by me to you. I will now inform you what other oblations may be made.

Thus ends the Rudhirádhyáyă.

XXIV.

AN ACCOUNT OF THE PEARL FISHERY IN THE GULPH OF MANAR,

In March and April 1797.

By HENRY J. LE BECK, *Esq.*

Communicated by Doctor Roxburg.

FROM the accounts of the former pearl fiſheries at Ceylon, it will be found, that none have ever been ſo productive as this year's. It was generally ſuppoſed that the renter would be infallibly ruined, as the ſum he paid for the preſent fiſhery was thought exorbitant when compared with what had been formerly given; but this conjecture in the event appeared ill founded, as it proved extremely profitable and lucrative.

The farmer this time was a Tamul merchant, who for the privilege of fiſhing with more than the uſual number of donies or boats, paid between two and three hundred thouſand Porto-novo pagodas, a ſum nearly double the uſual rent.

Theſe boats he farmed out again to individuals in the beſt manner he could, but for want of a ſufficient number of divers ſome of them could not be employed.

The fiſhing, which commonly began about the middle of February, if wind and weather allowed, was this year, for various reaſons, delayed till the end of the month; yet ſo favourable was the weather, that the renter was able to take advantage of the permiſſion granted by the agreement, to fiſh a little longer than the uſual period of thirty days.

The fiſhery cannot well be continued after the ſetting in of the ſouthern monſoon, which uſually happens about the 15th of April, as, after that time, the boats would not be able to reach the pearl banks, and the water being then ſo troubled by heavy ſeas, diving would be impracticable; in addition to which, the ſea-weed, a ſpecies of fucus, driven in by the ſoutherly wind, and which ſpreads to a conſiderable diſtance from the ſhore, would be an impediment.

Many of the divers, being Roman Catholics, leave the fiſhery on Sundays to attend divine ſervice in their church at Aripoo; but if either a Mahomedan or Hindu

Hindu feſtival happens during the fiſhing days, or if it is interrupted by ſtormy weather, or any other accident, this loſt time is made up by obliging the Catholics to work on Sundays.

The fear of ſharks, as we ſhall ſee hereafter, is alſo another cauſe of interruption. Theſe, amongſt ſome others, are the reaſons that, out of two months (from February till April), ſeldom more than thirty days can be employed in the fiſhery.

As this time would be inſufficient to fiſh all the banks (each of which has its appropriate name, both in Dutch and Tamul), it is carried on for three or four ſucceſſive years, and a new contract annually made till the whole banks have been fiſhed, after which they are left to recover.*

The length of time required for this purpoſe, or from one general fiſhing to another, has not yet been exactly determined; it was, therefore, a practice to depute ſome perſons to viſit the banks annually, and to give their opinion, whether a fiſhery might be undertaken with any degree of ſucceſs *.

From various accounts which I have collected from good authority, and the experience of thoſe who aſſiſted at ſuch examinations, I conjecture, that every ſeven years ſuch a general fiſhery could be attempted with advantage, as this interval ſeems ſufficient for the pearl ſhells to attain their growth: I am alſo confirmed in this opinion, by a report made by a Dutch governor at Jafnas of all the fiſheries that have been undertaken at Ceylon ſince 1722; a tranſlation of which is to be found in Wolfe's Travels into Ceylon. But the ruinous condition in which the divers leave the pearl banks at each fiſhery, by attending only to the profit of individuals, and not to that of the public, is one great cauſe, that it requires twice the above-mentioned ſpace of time, and ſometimes longer, for rendering the fiſhing productive. They do not pay the leaſt attention, to ſpare the young and immature ſhells that contain no pearl; heaps of them are ſeen thrown out of the boats as uſeleſs, on the beach between Manâr † and Aripoo; if theſe had been ſuffered to remain in their native beds, they would, no doubt, have produced many fine pearls. It might, therefore, be adviſeable, to oblige the boat people to throw them into the ſea again, before the boats leave the bank. If this circumſpection, in ſparing the ſmall pearl ſhells, to perpetuate the breed, was

* A gentleman, who aſſiſted at one of the laſt viſits, being an engineer, drew a chart of the banks, by which their ſituation and ſize are now better known than formerly.

† Manara, properly Manar, is a Tamul word, and ſignifies a ſandy river, from the ſhallowneſs of the ſea at that place.

always

always obſerved, ſucceeding fiſheries might be expected ſooner, and with ſtill greater ſucceſs: but the neglect of this ſimple precaution will, I fear, be attended with ſimilar fatal conſequences here, as have already happened to the pearl banks on the coaſt of Perſia, South America, and Sweden, where the fiſheries are by no means ſo profitable at preſent as they were formerly.

Another cauſe of the deſtruction of numbers of both old and young pearl ſhells, is the anchoring of ſo many boats on the banks, almoſt all of them uſed differently formed, clumſy, heavy, wooden anchors, large ſtones, &c. &c. If this evil cannot be entirely prevented, it might, at leaſt, be greatly leſſened, by obliging them all to uſe anchors of a particular ſort, and leſs deſtructive.

This ſeaſon the Seewel Bank only was fiſhed, which lies above twenty miles to the weſtward of Aripoo, oppoſite to the freſh water rivers of Mooſalee Modragam and Pomparipoo. It has been obſerved, that the pearls on the north-weſt part of this bank, which conſiſts of rock, are of a clearer water than thoſe found on the ſouth-eaſt, neareſt the ſhore, growing on corals and ſand.

Condatchey is ſituated in a bay, forming nearly a half-moon, and is a waſte, ſandy diſtrict, with ſome miſerable huts built on it. The water is bad and brackiſh, and the ſoil produces only a few, widely ſcattered, ſtunted trees and buſhes. Thoſe perſons who remain here during the fiſhery are obliged to get their water for drinking from Aripoo, a village with a ſmall old fort, lying about four miles to the ſouthward. Tigers, porcupines, wild hogs, pangolines, or the Ceylon armadillos, are, amongſt other quadrupeds, here common. Of amphibia, there are tortoiſes, eſpecially the teſtudo geometrica, and various kinds of ſnakes. A conchologiſt meets here with a large field for his enquiries. The preſents which I made to the people employed in the fiſhery, to encourage them to collect all ſorts of ſhells which the divers bring on ſhore, produced but little effect; as they were too much taken up in ſearching after the mother of pearl ſhells to pay attention to any other object. However, my endeavours were not entirely uſeleſs; I will ſpecify here a few of the number I collected during my ſtay: different kinds of pectines *, palium porphyreum, ſolen radiatus †, Venus caſtrenſis, Linn. ‡ aſtrea hyotis §, oſtr. Forſkolii, oſtr. Malleus ||, mytilus hirundo Linn. ¶,

* Scallops. † Radiated razor ſhell. ‡ Alpha cockle. § Double cocks-comb.

|| Hammer oyſter; theſe were pretty large, but many broken, and ſome covered by a calcareous cruſt. It is very probable that, among thoſe, there may be ſome precious white ones. ¶ Swallow muſcle.

ſpondius

ſpondilus crocius, pholas puſillus, Linn. *, mitra epiſcopalis, Linn., lepas ſtriata Pennanti (vide Zool. Brit.), patella tricarinata, Linn., bulla perfecta maculata †, harpa nobilis, porcellana ſalita, Rumph. ‡, ſtrombus ſcorpio, and other of inferior kinds. Amongſt the zoophytes, many valuable ſpecies of ſpongiæ, corallinæ, ſatulariæ, &c. a great variety of ſea ſtars, and other marine productions, that cannot be preſerved in ſpirits, but ſhould be deſcribed on the ſpot. Theſe, as well as the deſcription of the different animals inhabiting the ſhells, are the more worthy of our attention, and deſerve farther inveſtigation, as we are yet very deficient in this branch of natural hiſtory.

During the fiſhing ſeaſon, the deſert, barren place, Condatchey, offers to our view a ſcene equally novel and aſtoniſhing. A heterogeneous mixture of thouſands of people of different colours, countries, caſts, and occupations, the number of tents and huts, erected on the ſea ſhore, with their ſhops or baſars before each of them; and the many boats returning on ſhore in the afternoon, generally richly laden; all together form a ſpectacle entirely new to an European eye. Each owner runs to his reſpective boat as ſoon as it reaches the ſhore, in hopes of finding it fraught with immenſe treaſure, which is often much greater in imagination than in the ſhell; and though he is diſappointed one day, he relies with greater certainty on the next, looking forward to the fortune promiſed him by his ſtars, as he thinks it impoſſible for the aſtrological predictions of his Bráhmen to err.

To prevent riot and diſorder, an officer with a party of Malays is ſtationed here. They occupy a large ſquare, where they have a field-piece and a flag-ſtaff for ſignals.

Here and there you meet with brokers, jewellers, and merchants of all deſcriptions; alſo, ſuttlers offering proviſions and other articles to gratify the ſenſual appetite and luxury. But by far the greater number are occupied with the pearls. Some are baſely employed in aſſorting them; for which purpoſe they make uſe of ſmall braſs plates perforated with holes of different ſizes; others are weighing and offering them to the purchaſer; while others are drilling or boring them; which they perform for a trifle.

The inſtrument, theſe people carry about with them for this purpoſe, is of a very ſimple conſtruction, but requires much ſkill and exerciſe to uſe it; it is made

* The w l piercer. † Diving ſnail, (Grew, Muſ.) ‡ Salt-coury. Kl.

in

in the following manner; the principal part conſiſts of a piece of ſoft wood, of an obtuſe, inverted, conical ſhape, about ſix inches high and four in diameter in its plain ſurface; this is ſupported by three wooden feet, each of which is more than a foot in length. Upon the upper flat part of this machine are holes, or pits, for the larger pearls, and the ſmaller ones are beat in with a wooden hammer. On the right ſide of this ſtool, half a coca-nut ſhell is faſtened, which is filled with water. The drilling inſtruments are iron ſpindles, of various ſizes, adapted to the different dimenſions of the pearls, which are turned round in a wooden head by a bow. The pearls being placed on the flat ſurface of the inverted cone, as already mentioned, the operator ſitting on a mat, preſſes on the wooden head of his inſtrument with the left hand, while, with his right, he moves the bow which turns round the moveable part of the drill; at the ſame, he moiſtens the pearl, occaſionally dipping the little finger of the ſame hand into the water of the cocoa-nut ſhell, with a dexterity that can only be attained by conſtant practice.

Amongſt the crowd are found vagabonds of every deſcription, ſuch as Pandarams, Andee, or Hindu monks, fakirs, beggars, and the like, who are impertinently troubleſome. Two of theſe wretches particularly attracted the attention of the mob, though their ſuperſtitious penance muſt have diſguſted a man of the leaſt reflection: one had a gridiron, of one and a half foot long and the ſame in breadth, faſtened round his neck, with which he always walked about, nor did he take it off either when eating or ſleeping; the other had faſtened round that member, which decency forbids me to mention, a braſs ring, and fixed to it was a chain, of a fathom in length, trailing on the ground, the links of this chain were as thick as a man's finger, and the whole was exhibited in a moſt ſcandalous manner.

The peſtilential ſmell occaſioned by the numbers of putrifying pearl fiſhes, renders the atmoſphere of Condatchey ſo inſufferably offenſive when the ſouth-weſt wind blows, that it ſenſibly affects the olfactory nerves of any one unaccuſtomed to ſuch cadaverous ſmells. This putrefaction generates immenſe numbers of worms, flies, muſkitoes, and other vermin; all together forming a ſcene ſtrongly diſpleaſing to the ſenſes.

Thoſe who are not provided with a ſufficient ſtock of money ſuffer great hardſhips, as not only all kinds of proviſions are very dear, but even every drop of good water muſt be paid for. Thoſe who drink the brackiſh water of this place are often attacked by ſickneſs. It may eaſily be conceived what an effect

the

the extreme heat of the day, the cold of the night, the heavy dews, and the putrid ſmell, muſt have on weak conſtitutions. It is, therefore, no wonder that of thoſe who fall ſick many die, and many more return home with fevers, fluxes, or other equally fatal diſorders.

The many diſappointments, uſually experienced by the lower claſſes of men in particular, make them often repent of their coming here. They are often ruined, as they riſk all they are worth to purchaſe pearl ſhells; however, there are many inſtances of their making a fortune beyond all expectation. A particular circumſtance of this kind fell within my own obſervation: a day labourer bought three oyſters * for a copper fanam (about the value of two pence) and was ſo fortunate as to find one of the largeſt pearls which the fiſhery produced this ſeaſon.

The donies appointed for the fiſhery are not all procured at Ceylon; many came from the coaſts of Coromandel and Malabar, each of which has its diſtinguiſhing number. About ten o'clock at night a gun is fired as a ſignal, when they ſail from Condatchey with an eaſterly or land wind, under the direction of a pilot. If the wind continues fair, they reach the bank before day, and begin diving at ſun riſe, which they continue till the weſt or ſea breeze ſets in, with which they return. The moment they appear in ſight, the colours are hoiſted at the flag ſtaff, and in the afternoon they come to an anchor, ſo that the owners of the boats are thereby enabled to get their cargoes out before night, which may amount to 30,000 oyſters, if the divers have been active and ſucceſsful.

Each boat carries twenty-one men and five heavy diving ſtones for the uſe of ten divers, who are called in Tamul, kooly kârer, the reſt of the crew conſiſts of a tandel, or head boatman, and ten rowers, who aſſiſt in lifting up the divers and their ſhells.

The diving ſtone is a piece of coarſe granite, a foot long, ſix inches thick, and of a pyramidical ſhape, rounded at the top and bottom. A large hair rope is put through a hole in the top. Some of the divers uſe another kind of ſtone ſhaped like a half moon, to bind round their belly, ſo that their feet may be free. At preſent theſe are articles of trade at Condatchey. The moſt common, or pyramidical

* The Eaſt-India pearl ſhell, is well known to be the matrix perlarum (mother of pearl) of Rumphius, or the Mytilus margaritiferus of Linnæus; conſequently the general term pearl oyſter muſt be erroneous; however, as it has long been in common uſe, I hope to be excuſed for continuing it.

ſtone,

ſtone, generally weighs about thirty pounds. If a boat has more than five of them, the crew are either corporally puniſhed or fined.

The diving, both at Ceylon and at Tutucorin, is not attended with ſo many difficulties as authors imagine. The divers, conſiſting of different caſts and religions, (though chiefly of Parrawer * and Muſſelmans,) neither make their bodies ſmooth with oil, nor do they ſtop their ears, mouths, or noſes with any thing, to prevent the entrance of ſalt water. They are ignorant of the utility of diving bells, bladders, and double flexible pipes. According to the injunctions of the ſhark conjurer they uſe no food while at work, nor till they return on ſhore, and have bathed themſelves in freſh water. Theſe Indians, accuſtomed to dive from their earlieſt infancy, fearleſsly deſcend to the bottom in a depth of from five to ten fathoms, in ſearch of treaſures. By two cords a diving ſtone and a net are connected with the boat. The diver putting the toes of his right foot on the hair rope of the diving-ſtone, and thoſe of his left on the net, ſeizes the two cords with one hand, and ſhutting his noſtrils with the other, plunges into the water. On reaching the bottom, he hangs the net round his neck, and collects into it the pearl ſhells as faſt as poſſible, during the time he finds himſelf able to remain under water, which uſually is about two minutes. He then reſumes his former poſture, and making a ſignal, by pulling the cords, he is immediately lifted into the boat. On emerging from the ſea, he diſcharges a quantity of water from his mouth and noſe, and thoſe who have not been long enured to diving frequently diſcharge ſome blood; but this does not prevent them from diving again in their turn. When the firſt five divers come up and are reſpiring, the other five are going down with the ſame ſtones. Each brings up about one hundred oyſters in his net, and if not interrupted by any accident, may make fifty trips in a forenoon. They and the boat's crew get generally from the owner, inſtead of money, a fourth of the quantity which they bring on ſhore; but ſome are paid in caſh, according to agreement.

The moſt ſkilful divers come from Colliſh, on the coaſt of Malabar; ſome of them are ſo much exerciſed in the art, as to be able to perform it without the aſſiſtance of the uſual weight; and for a handſome reward will remain under water for the ſpace of ſeven minutes; this I ſaw performed by a Caffry boy, belonging to a citizen at Karical, who had often frequented the fiſheries of theſe banks.

* Fiſhermen of the Catholic religion.

Though

Though Dr. Halley deems this impoſſible, daily experience convinces us, that by long practice any man may bring himſelf to remain under water above a couple of minutes. How much the inhabitants of the South Sea Iſlands diſtinguiſh themſelves in diving we learn from ſeveral accounts; and who will not be ſurpriſed at the wonderful Sicilian diver Nicholas, ſurnamed the Fiſh *?

Every one of the divers, and even the moſt expert, entertain a great dread of the ſharks, and will not, on any account, deſcend until the conjurer has performed his ceremonies. This prejudice is ſo deeply rooted in their minds, that the government was obliged to keep two ſuch conjurers always in their pay, to remove the fears of their divers. Thirteen of theſe men were now at the fiſhery from Ceylon and the coaſt, to profit by the ſuperſtitious folly of theſe deluded people. They are called in Tamul, Pillăl Kadtăr, which ſignifies one who binds the ſharks and prevents them from doing miſchief.

The manner of enchanting conſiſts in a number of prayers learned by heart, that nobody, probably not even the conjurer himſelf, underſtands, which he, ſtanding on the ſhore, continues muttering and grumbling from ſun riſe until the boats return; during this period, they are obliged to abſtain from food and ſleep, otherwiſe their prayers would have no avail, they are, however, allowed to drink, which privilege they indulge in a high degree, and are frequently ſo giddy, as to be rendered very unfit for devotion. Some of the conjurers accompany the divers in their boats, which pleaſes them very much, as they have their protectors near at hand. Nvertheleſs, I was told, that in one of the preceding fiſheries, a diver loſt his leg by a ſhark, and when the head conjurer was called to an account for the accident, he replied that an old witch had juſt come from the coaſt, who, from envy and malice, had cauſed this diſaſter, by a counter-conjuration, which made fruitleſs his ſkill, and of which he was informed too late; but he afterwards ſhewed his ſuperiority by enchanting the poor ſharks ſo effe ually, that though they appeared in the midſt of the divers, they were unable to open their mouths. During my ſtay at Condatchey, no accident of this kind happened. If a ſhark is ſeen, the divers immediately make a ſignal, which, on perceiving, all the boats return inſtantly. A diver who trod upon a hammer oyſter, and was ſomewhat wounded,

* According to Kircher, he fell a victim amongſt the Polypes in the gulph of Charybdis, on his plunging, for the ſecond time, in its dangerous whirlpool, both to ſatisfy the curioſity of his king, Frederic, and his inclination for wealth. I will not pretend to determine, how far this account has been exaggerated.

thought he was bit by a ſhark, conſequently made the uſual ſignal, which cauſed many boats to return; for which miſtake he was afterwards puniſhed.

The owners of the boats * ſometimes ſell their oyſters, and at other times open them on their own account. In the latter caſe ſome put them on mats in a ſquare, ſurrounded with a fence; others dig holes of almoſt a foot deep, and throw them in till the animal dies; after which they open the ſhells and take out the pearls with more eaſe. Even theſe ſquares and holes are ſold by auction after the fiſhery is finiſhed, as pearls often remain there, mixed with the ſand.

In ſpite of every care, tricks in picking out the pearls from the oyſters can hardly be prevented. In this the natives are extremely dexterous. The following is one mode they put in practice to effect their purpoſe: when a boat owner employs a number of hired people to collect pearls, he places over them an inſpector of his own, in whom he can confide; theſe hirelings previouſly agree that one of them ſhall play the part of a thief, and bear the puniſhment, to give his comrades an opportunity of pilfering. If one of the gang happens to meet with a large pearl, he makes a ſign to his accomplice, who inſtantly conveys away one of ſmall value, purpoſely, in ſuch a manner as to attract notice. On this the inſpector and the reſt of the men take the pearl from him: he is then puniſhed and turned out of their company. In the mean time, while he is making a dreadful uproar, the real thief ſecures the valuable pearl, and afterwards the booty is ſhared with him who ſuffered for them all. Beſides tricks like theſe the boat owners and purchaſers often loſe many of the beſt pearls, while the dony is returning from the bank; for, as long as the animal is alive and untouched, the ſhells are frequently open near an inch; and if any of them contain a large pearl, it is eaſily diſcovered and taken out by means of a ſmall piece of ſtiff graſs or bit of ſtick, without hurting the pearl fiſh. In this practice they are extremely expert. Some of them were diſcovered whilſt I was there, and received their due puniſhment.

Gmelin aſks if the animal of the mytilus margaritiferus is an aſcidia? See LINN. Syſt. Nat. tom. I. p. vi. 3350. This induces me to believe that it has never yet been accurately deſcribed: it does not reſemble the aſcidia of LINNÆUS, and may,

* Theſe are the individuals which farm one or more boats from the renter; and though they are in poſſeſſion of them only during the fiſhery, they are commonly called the owners of the boats.

perhaps,

perhaps, form a new genus. It is faſtened to the upper and lower ſhells by two white flat pieces of muſcular ſubſtance, which are called by Houttuin* ears, and extend about two inches from the thick part of the body, growing gradually thinner. The extremity of each ear lies looſe, and is ſurrounded by a double brown fringed line. Theſe lie almoſt the third of an inch from the outer part of the ſhell, and are continually moved by the animal. Next to theſe, above and below, are ſituated two other double fringed moveable ſubſtances, like the branchiæ of a fiſh. Theſe ears and fringes are joined to a cylindrical piece of fleſh, of the ſize of a man's thumb, which is harder and of a more muſcular nature than the reſt of the body. It lies about the centre of the ſhells, and is firmly attached to the middle of each. This, in fact, is that part of the pearl fiſh which ſerves to open and ſhut the ſhells. Where this column is faſtened, we find on the fleſh deep impreſſions, and on the ſhell various nodes of round or oblong forms, like imperfect pearls. Between this part, and the hinge (cardo), lies the principal body of the animal, ſeparated from the reſt, and ſhaped like a bag. The mouth is near the hinge of the ſhell, enveloped in a veil, and has a double flap or lip on each ſide; from thence we obſerve the throat (œſophagus) deſcending like a thread to the ſtomach. Cloſe to the mouth there is a curved browniſh tongue, half an inch in length, with an obtuſe point; on the concave ſide of this deſcends a furrow, which the animal opens and ſhuts, and probably uſes to convey food to its mouth†. Near its middle are two blueiſh ſpots, which ſeem to be the eyes. In a pretty deep hole near the baſe of the tongue, lies the beard (byſſus), faſtened by two fleſhy roots, and conſiſting of almoſt one hundred fibres, each an inch long, of a dark green colour, with a metallic luſtre; they are undivided, parallel, and flattened. In general the byſſus is more than three quarters of an inch, without the cleft (rima); but if the animal is diſturbed, it contracts it conſiderably. The top of each of theſe threads terminates in a circular gland or head, like the ſtygma of many plants. With this byſſus they faſten themſelves to rocks, corals, and other ſolid bodies; by it the young pearl

* Vide Houtt. Nat. Hiſt. Vol. I. p. xv. p. 381, ſeq.

† The depth at which the pearl fiſh generally is to be found, hindered me from paying any attention to the locomotive power, which I have not the leaſt doubt it poſſeſſes, uſing for this purpoſe its tongue. This conjecture is ſtrengthened by the accurate obſervations made on muſcles by the celebrated Reaumur, in which he found that this body ſerves them as a leg or arm, to move from one place to another. Though the divers are very ignorant with regard to the œconomy of the pearl fiſh, this changing of habitation has been long ſince obſerved by them. They allege, that it alters its abode when diſturbed by an enemy or in ſearch of food. In the former caſe they ſay it commonly deſcends from the ſummit of the bank to its declivity.

fiſh

fiſh cling to the old ones, and with it the animal procures its food, by extending and ontracting it at pleaſure. Small ſhell fiſh, on which they partly live, are often found clinging to the former. The ſtomach lies cloſe to the root of the beard, and has, on its lower ſide, a protracted obtuſe point. Above the ſtomach are two ſmall red bodies, like lungs; and from the ſtomach goes a long channel or gut, which takes a circuit round the muſcular column above-mentioned, and ends in the anus, which lies oppoſite to the mouth, and is covered with a ſmall thin leaf, like a flap. Though the natives pretend to diſtinguiſh the ſexes, by the appearance of the ſhell, I could not find any genitalia. The large flat ones they call males, and thoſe that are thick, concave, and vaulted, they call females, or pedoo-chippy; but, on a cloſe inſpection, I could not obſerve any viſible ſexual difference.

It is remarkable that ſome of theſe animals are as red as blood, and that the inſide of the ſhell has the ſame colour, with the uſual pearly luſtre, though my ſervants found a reddiſh pearl in an oyſter of this colour; yet ſuch an event is very rare. The divers attribute this redneſs to the ſickneſs of the pearl fiſh; though it is moſt probable that they had it from their firſt exiſtence. In the ſhade they will live twenty-four hours after being taken out of the water. This animal is eaten by the lower claſs of Indians, either freſh in their curries, or cured by drying; in which ſtate they are exported to the coaſt; though I do not think them by any means palatable.

Within a mother of pearl ſhell I found thirteen murices nudati (vide Chemnitz's New Syſtem, Cabt. vol. XI. tab. 192, f. 1851 and 1852), the largeſt of which was three quarters of an inch long; but as many of them were putrid, and the pearl-fiſh itſelf dead, I could not aſcertain whether they had crept in as enemies, or were drawn in by the animal itſelf. At any rate turtles and crabs are inimical to the animals, and a ſmall living crab was found in one of them.

The pearls are only in the ſofter part of the animal, and never in that firm muſcular column above-mentioned. We find them in general near the earth, and on both ſides of the mouth. The natives entertain the ſame fooliſh opinion concerning the formation of the pearl which the ancients did. They ſuppoſe them formed from dew-drops in connection with ſun-beams. A Bráhmen informed me that it was recorded in one of his Sanſcrit books, that the pearls are formed in the month of May at the appearance of the Sooatee ſtar (one of their twenty-ſeven conſtellations), when the oyſters come up to the ſurface of the water,

water, to catch the drops of rain. One of the moſt celebrated conchologiſts*, ſuppoſes that the pearl is formed by the oyſter in order to defend itſelf from the attacks of the pholades and boreworms. But we may be aſſured that in this ſuppoſition he is miſtaken, for although theſe animals often penetrate the outer layers of the pearl ſhell, and there occaſion hollow nodes, yet, on examination, it will be found, that they are never able to pierce the firm layer, with which the inſide of the ſhell is lined. How can the pearls be formed as a defence againſt exterior worms, when, even on ſhells that contain them, no worm-holes are to be ſeen? It is, therefore, more probable theſe worms take up their habitations in the nodes, in order to protect themſelves from the attacks of an enemy, than that they are capable of preying on an animal, ſo well defended as the pearl-fiſh is. It is unneceſſary to repeat the various opinions and hypotheſes of other modern authors; it is much eaſier to criticiſe them, than to ſubſtitute in their place a more rational theory. That of Reaumur, mentioned in the Memoirs of the French Academy for 1712, is the moſt probable, viz. that the pearls are formed like bezoars and other ſtones in different animals, and are apparently the effects of a diſeaſe. In ſhort it is very evident, that the pearl is formed by an extravaſation of a glutinous juice either within the body, or on the ſurface of the animal: the former caſe is the moſt common. Between one and two hundred pearls have been found within one oyſter. Such extravaſations may be cauſed by heterogeneous bodies, ſuch as ſand, coming in with the food, which the animal, to prevent diſagreeable friction, covers with its glutinous matter, and which as it is ſucceſſively ſecreted forms many regular lamellæ, in the manner of the coats of an onion, or like different ſtrata of bezoars, only much thinner; this is probable, for if we cut through the centre of a pearl, we often find a foreign particle, which ought to be conſidered as the nucleus, or primary cauſe of its formation. The looſe pearls may originally have been produced within the body, and on their encreaſe may have ſeparated and fallen into the cavity of the ſhell. Thoſe compact ones, fixed to the ſhell, ſeem to be produced by ſimilar extravaſation, occaſioned by the friction of ſome roughneſs on the inſide of the ſhell. Theſe and the pearl-like nodes have a different aſpect from the pearls, and are of a darker and bluer colour. In one of the former I found a pretty large, true oval pearl, of a very clear water; while the node itſelf was of a dark blueiſh colour. The yellow or gold coloured pearl, is the moſt eſteemed by the natives: ſome have a bright, red, luſtre; others

* The Rev. Mr. Chemnitz at Copenhagen.

are

are grey or blackiſh, without any ſhining appearance, and of no value. Sometimes when the grey lamella of a pearl is taken off, under it is found a beautiful genuine one, but it oftener happens that after having ſeparated the firſt coat you find a worthleſs impure pearl. I tried ſeveral of them, taking one lamella off after another, and found clear and impure by turns, and in an impure pearl I met with one of a clear water, though in the centre of all I found a foreign particle. The largeſt and moſt perfect pearl which I ſaw during my ſtay at Condatchy, was about the ſize of a ſmall piſtol bullet, though I have been told ſince my departure many others of the ſame ſize have been found. The ſpotted and irregular ones are ſold cheap, and are chiefly uſed by the native phyſicians as an ingredient in their medicines.

We may judge with greater or leſſer probability by the appearance of the pearl ſhell, whether they contain pearls or not. Thoſe that have a thick calcareous cruſt upon them, to which ſerpulæ (ſea tubes) Tubuli marini irregulariter intorti, Criſta-gali, Chamar lazuras, Lepas tintinabulum, Madreporee, Millipore, Cellipore, Gorgontæ, Spongiæ, and other Zoophytes are faſtened, have arrived at their full growth, and commonly contain the beſt pearls; but thoſe that appear ſmooth, contain either none, or ſmall ones only.

Were a naturaliſt to make an excurſion for a few months to Manâr, the ſmall iſland near Jafna and the adjacent coaſt, he would diſcover many natural curioſities, ſtill buried in obſcurity, or that have never been accurately deſcribed.

Indeed no place in the Eaſt Indies abounds more with rare ſhells, than theſe: for there they remain undiſturbed, by being ſheltered from turbulent ſeas, and the fury of the ſurf. I will juſt name a few of them: viz. Tellina foliaca Lynn. *, Tell, Spenglerii, Arca culculata †, Arca Noæ, ſolen anatinus Lynn. Oſtrea Iſognomum, Terebulium, albidum, ſtriatum, Turbo ſcalaris ‡, Bula volva Linn. §, Vexillum ingritarum, &c. Amongſt the beautiful conc ſhells: conus thalaſſiarchus Anglicanus cullatus ||, amadis thaſſiarchus, con. generalcis Linn. c. capitaneus **, c. miles ††, c. ſtercus muſcarum, c. reteaureum, c. glaucus ‡‡, c. cereola, regia corona murus lapedius, canda erminea ſocietas cordium. There are many other beſides thoſe already mentioned, equally valuable and curious.

* The golden tong.
§ Weaver's ſhuttle.
†† Great ſand ſtamper.
† Mounkſcape.
|| Red Engliſh admiral.
‡‡ Capt. Gottw.
‡ Royal ſtaircaſe.
** Green ſtamper.

The

The great ſucceſs of the Rev. Doctor John in conchology when at Tutucorin and aſſiſted by G. Angelbeck, with a boat and divers; and the capital collections made by his agents, whom he afterwards ſent there with the neceſſary inſtructions and apparatus, may be ſeen in Chemnitz's elegant cabinet of ſhells in 4to. (with illuminated plates), and how many new ſpecies of Zoophytes he diſcovered, we learn from another German work by Eſper, at Erlangen, the third volume of which is nearly finiſhed.

XXV.

ASTRONOMICAL OBSERVATIONS MADE IN THE UPPER PROVINCES OF HINDUSTAN.

By WILLIAM HUNTER, *Esq.*

LATITUDES OBSERVED.

1795.		Place.	Sun or Star.	Latitude.			Remarks.		Mean Latitude.			
				°	′	″			°	′	″	‴
Feb.	23	Nawabgunge; Chubbooterah E.	⊙ M. A.	27	26	46	clear	moderate				
	24	Alygunge; Moſque S. 66 E.	⊙ M. A.	27	30	18	ditto	ditto				
	25	Doomree; Fort. S. 11 E. diſt. 2. 7. Fs.	⊙ M. A.	27	33	13	ditto	ditto				
	26	Erjunpoor; N. 61—89 W. 1. 75. Fs.	⊙ M. A.	27	41	12	ditto	ditto				
	27	Manhera; tents cloſe to the town	⊙ M. A.	27	44	45	cloudy	ditto				
	28	Secundra (named Raw); N. 30. 72. E. 3. 25. Fs.	⊙ M. A.	27	41	29	ditto	ditto				
March	2	Mindoo; Mr. Orr's houſe. S. 34. E. 4. Fs.	⊙ M. A.	27	37	56	clear	ditto				
	3	Ditto	⊙ M. A.	27	38	17	cloudy	ditto	27	38	8	0
	4	Ditto	⊙ M. A.	27	38	11	thin ſlit clouds	do				
	5	Coel; General Deboigne's houſe	⊙ M. A.	27	54	4	clear	windy				
	6	Ditto	⊙ M. A.	27	54	8	ditto	moderate	27	54	6	0
	15	Jooar; diſt. 2. 25. Fs.	⊙ M. A.	27	36	42	ditto	windy				
	16	Hunſeeah Gunge; diſt. 3. Fs. moſque of Abdul-nubbee-Khan, at Matra. S. 26. W.	⊙ M. A.	27	31	33	ditto	moderate				
	17	Matra; Litcha Bagh	⊙ M. A.	27	29	46	ditto	ditto				
	18	Areeng; Ft. N. 71. E. 1. 5. Fs.	⊙ M. A.	27	29	50	ditto	ditto				
	19	Deeg; gate. N. 72. E. 3. 25. Fs.	⊙ M. A.	27	29	6	ditto	windy				
	20	Nugur; S. 83. E. 3. 7. Fs.	⊙ M. A.	27	26	13	ditto	moderate				
	21	Alinagur; S. 30. 40. E. 1. M. 7. 3. Fs. Cohery Pahang. N. 2. W. 4. M. 2. 3. Fs.	⊙ M. A.	27	31	58	ditto	ditto				
	30	Jablee, or Bijouly; Ft. S. 46. 67. W. 2. Fs.	β Urſ. Maj.	27	22	1	ditto	ditto				
	31	Ditto	α Hydræ	27	24	8	ditto	ditto	27	23	4	5
							brightneſs of the moon obſerved the ſtar					
April	7	Maat; S. 47. E. N. 49. E. 1. 75. Fs.	β Urſ. Maj.	27	37	16	clear	moderate				
	8	Nop; Fort. N. 20. W.—N. 17. E. 2. Fs.	α Hydræ	27	51	24	ditto	ditto	27	50	50	0
		Ditto	β Urſ. Maj.	27	50	16	ditto	ditto				
	9	Tappel; Ft. N. 12.—62. W. 1. 4. Fs.	α Hydræ	28	3	9	clear	windy	28	3	9	0
		Ditto	β Urſ. Maj.	28	3	17						
	10	Ditto	β Urſ. Maj.	28	3	1	ditto	moderate				
	11	Raghoopoor; N. 8. E.—N. 85. W. 0. 5. Fs.	α Hydræ	28	14	46	ditto	ditto				
	12	Duncour; gate. S. 5. E —3. 5. Fs.	α Hydræ	28	21	31	ditto	ditto				
	13	Soorejpoore; S. 5. W.—S. 50. E. 1. 6. Fs.	α Hydræ	28	31	10	ditto	ditto				
	14	Putpurgunge; S. 46.—81. E. 2. 3. Fs.	α Hydræ	28	36	47	ditto	ditto				
	15	DEHLY; garden of Shah Nizam-ud-deen	α Hydræ	28	38	55	ditto	ditto				
			α ♑	28	38	32			28	38	36	0
	16	Ditto Ditto	α Draconis	28	39	37						

1795.	Place.	Sun or Star.	Latitude.	Remarks.	Mean Latitude.
			° ′ ″		° ′ ″ ‴
April 20	Dehly; palace of Sufder Jung.	α Hydrae.	28 40 47	clear moderate	
		Aliath.	28 40 24		
		α ♍	28 40 2		28 40 12 5
		α Draconis.	28 39 37		
June 15	Secundra; N. W. by N. 2. 3. Fs.	α ♏	28 26 5	thin clouds moderate	
19	Anoopsheber; Lieut. Christie's bungalah.	α ♏	28 23 5	clear calm	
20	Ditto	α ♏	28 23 5	ditto ditto	
July 9	Camp, on bank of Neem-ca-nullah Biswah, S. 40. W. 1 M. 2. 2. Fs.	α Pisc. Aust.	27 49 59	ditto moderate	
10	Kasgunge; South-east gate, N. 57. W. 5. 4. F.	Ditto	27 48 37	ditto ditto	
1796					
Febr. 13	Amelia (village 1 mile from Choobeepoor), N. 12. W. 1. 8. Fs.	⊙ M. A.	26 36 6	ditto ditto	
19	Daipoor; camp close to an old garden.	⊙ M. A.	26 58 25	ditto ditto	
17	Amirtgunge; gate. N. 60. W. 4. Fs.	⊙ M. A.	27 5 10	thin flitting cl. ditto	
27	Dehliah; tent near the artillery ground, Cungalah, S. 66. E. one mile.	⊙ M. A.	27 21 48	clear moderate	27 21 51 0
March 3	Ditto	Sirius.	27 21 54		
4	Neemkarouly; gate. E. 0. 8. F.	⊙ M. A.	27 19 2	thin clouds, calm	
	Ditto	β Can. Maj.	27 18 58	clear ditto	27 18 58 5
	Ditto	Sirius.	27 18 54	clear ditto	27 18 58 5
	Ditto	δ Can. Maj.	27 19 0		
5	Agut-ke-seray; N. 23.—60. E. 2. Fs.	⊙ M. A.	27 20 53	thin clouds, moderate	
	Ditto	β Can. Maj.	27 21 5		
	Ditto	Sirius.	27 21 1	clear calm	27 21 12 57
	Ditto	δ Can. Maj.	27 21 52		
6	Aleepoor-Rhera; S. 25.—62. E. 1. F.	⊙ M. A.	27 19 31	clear windy	
	Ditto	α ♎	27 20 2		
	Ditto	β Urs. Min.	27 19 35	ditto moderate	27 19 39 0
	Ditto	β ♎	27 19 27		
7	Beechmar; N. 37.—77. E. 1. F.	α Draconis.	27 20 31		
		α ♎	27 20 39		
		β Urs. Min.	27 20 5	ditto ditto	27 20 18 0
		β ♎	27 19 57		
8	Jumlapoor; N. 20.—39. E. 1. 6. F.	⊙ M. A.	27 25 31		
	Ditto	β Can. Maj.	27 25 5		
	Ditto	Sirius.	27 24 54	ditto ditto	27 25 11 0
	Ditto	δ Can. Maj.	27 25 15		
9	Sukeet; Fort. S.—S. 51. E. 1. F.	α Draconis.	27 26 39	ditto ditto	
	Ditto	α ♎	27 25 24	do. do. alt. suspected too great	
	Ditto	β Urs. Min.	27 27 5		
	Ditto	β ♎	27 25 50	ditto ditto	27 26 20 0
10	Ditto	⊙ M. A.	27 26 42	ditto windy	
	Ditto	β Urs. Min.	27 26 42		
	Ditto	β ♎	27 25 57	ditto calm	

1796.	Place.	Sun or Star.	Latitude.	Remarks.	Mean Latitude.
			° ′ ″		° ′ ″ ‴
March 11	Etap; S. 33. E.—S. 12. W. South gate, S. 7. E. 2. 1. F.	⊙ M. A.	27 34 18	clear windy	
	Ditto	β Can. Maj.	27 33 29		
	Ditto	Sirius	27 34 1		
	Ditto	δ Can. Maj.	27 35 4		27 34 15 0
	Ditto	β Urſ. Min.	27 34 12		
	Ditto	β ♎	27 34 27		
12	Nadowly; Ft. S. 76. E.—N. 88. E. 3. 5. Fs.	⊙ M. A.	27 34 55	clear windy	
	Ditto	Sirius	27 34 16		
	Ditto	δ Can. Maj.	27 34 45	ditto moderate	27 34 42 0
	Ditto	β Urſ. Min.	27 35 5		
	Ditto	β ♎	27 34 27		
13	Secundra (Raw.); S. 74. E. N. 35. W. cloſe	⊙ M. A.	27 41 33	ditto windy.	
14	Mulloy, Mr. Stewart's houſe	⊙ M. A.	27 42 45	ditto ditto	
	Ditto	α Draconis	27 42 34		
	Ditto	α ♎	27 42 18	ditto calm	27 42 27 0
	Ditto	β Urſ. Min.	27 42 12		
	Ditto	α ♎	27 42 28		
15	Jelaly; Mr. Longcroft's houſe; N. E. 3. 5. Fs.	α ♎	27 51 56		
	Ditto	β Urſ. Min.	27 52 6	ditto ditto	27 52 10 0
	Ditto	β ♎	27 52 28		
16	Bellah, Mr. Lenham's houſe; S. 85. E. 4. 7. Fs.	α Draconis	27 55 2		
	Ditto	α ♎	27 54 48	ditto ditto	27 54 53 0
	Ditto	β Urſ. Min.	27 53 13		
	Ditto	α ♎	27 54 28		
17	Atrawley, North gate; S. 16. W. 2. 7. Fs.	δ Can. Maj.	28 3 16		
	Ditto	α Draconis	28 2 2		
	Ditto	α ♎	28 1 27	thin clouds moderate	28 2 14 0
	Ditto	β Urſ. Min.	28 2 5		
	Ditto	β ♎	28 2 21		
18	Debay; S. 2. E.—S. 13. W. North gate, S. 6. W. 7. 2. Fs.	⊙ M. A.	28 14 1	clear moderate	
20	*Anoopſheher*; Col. Ware's bungalow	⊙ M. A.	28 23 6	clear windy.	
21	Ditto	⊙ M. A.	28 23 21	ditto ditto	
22	Ditto	α ♎	28 22 49	clear, calm, ſtars rather obſcured by the brightneſs of the moon	28 23 7 0
	Ditto	β ♎	28 23 14		
24	Atrawly; South gate. diſt. 4. 6. Fs.	δ Can. Maj.	28 1 31		
	Ditto	η Can. Maj.	28 1 43	clear calm	28 1 54 0
	Ditto	ϑ Navis	28 2 36		
	Ditto	α Hydræ	28 1 48		
29	Aly gunge; E. gate, diſt. 1. 3. Fs.	ϑ Navis	27 30 27		
	Ditto	α Hydræ	27 29 54	clear windy	27 29 38 0
	Ditto	β Urſ. Maj.	27 29 9		
	Ditto	γ Urſ. Maj.	27 29 3		

(1086)

				°	′	″			°	′	″	m
May	30	Betourah; N. 62. E. 1 mile, right hand bank of Ganges	α ♍	26	2	52	clear	windy	26	1	54	0
			α Draconis	26	1	23						
			α ♎	26	1	29						
			β Urſ. Min.	26	1	51						
	31	Yecoot gunge; (ſmall village left hand bank of Ganges); Sharadpoor; S. 22. W. about 2 miles	α ♍	25	40	2	clear	moderate				
June	1	*Allahabad*; Ft. S. E. angle	Aliath.	25	24	54	hazy	calm	25	25	21	0
			α ♍	25	25	54						
			α ♎	25	25	14						
	2	Mudura, near Litchageer	Aliath.	25	17	47			25	17	1	0
			♍	25	17	31						
			α Draconis	25	16	6						
			α ♎	25	16	42						
	3	Mirzapoor; E. 1 mile	α Draconis	25	9	6	clear	moderate	25	9	43	0
			α ♎	25	10	20						
			β Urſ. Min.	25	9	43						

ECLIPSES of JUPITER'S SATELLITES, obſerved with DOLLOND'S *Achromatic Teleſcope magnifying* 80 *Times.*

Apparent Time.					Sat.	Im. or Em	Place of Obſervation.	Longitude.			Weather.		Remarks.
1794.	D.	H.	M.	S.				°	′	″			
Jan.	24	17	28	44	1	Im	Tandah - -	82	11	0	a little hazy	moderate	
March	4	15	54	8	1	Im	Lucknou (Mr. Orr's houſe)	80	39	15	clear	calm	
	31	14	59	15	2	Im	Meinpoory - -	78	30	15	ditto	windy	The brightneſs of Jupiter made the ſatellite indiſtinct.
April	29	12	41	39	1	Im	Truttegurgh - -	79	18	0	ditto	moderate	
May	2	14	44	37	2	Im	Ditto - - -	79	16	15	ditto	ditto	
	13	16	30	16	1	Im	Ditto - - -	79	18	30	ditto	windy	
June	3	14	19	21	2	Im	Kankpoor (Mr. Yeld's bungalah)	79	55	0	ditto	moderate	
1795.													
March	23	17	9	31	1	Im	Camp near Alinagar -	76	51	15	ditto	ditto	
May	1	15	41	42	1	Im	DEHLY, Sufden Jung's houſe	76	42	0	thin clouds	calm	The planet was clouded a few ſeconds, about the time of immerſion.
	3	16	13	43	2	Im	Ditto - - -	76	48	45	clear	moderate	
	17	13	58	6	1	Im	Ditto - - -	76	48	15	ditto	ditto	The ſatellite is certainly viſible till this time;
	27	14	29	15	3	Em	Ditto - - -	78	2	45	clear	windy	as the ſky was not very clear, the immerſion
	28	13	18	41	2	Im	Ditto - - -	76	43	15	ditto	ditto	may have been ſome ſeconds later. As the
June	4	15	55	0	2	Im	Ditto - - -	77	8	45	ditto	ditto	teleſcope was ſhaken by the wind, the emerſion
	22	10	22	51	2	Im	Anoopſheher - -	77	48	45	ditto	ditto	was probably a little earlier.
July	11	10	38	40	1	Im	Erjunpoor - -	78	34	45	ditto	moderate	The obſervation very diſtinct; but there is
Nov.	15	6	42	30	2	Em	Futtegurgh - -	79	49	15	ditto	calm	ſome uncertainty in the time, from an irregu-
	21	7	23	22	1	Em	Ditto - - -	80	2	45			larity in the watch this day. It had been loſ-
Dec.	14	7	29	12	1	Em	Ditto - - -	79	49	15	ditto	ditto	ing at the rate of 58 ſeconds a day, mean time;

but between the 4th, and 7 minutes and a quarter, and the 5th, at the ſame hour, loſt 2 minutes 59 ſeconds, from being wound up five hours later than uſual, i. e. at 5 P. M. on the 4th inſtead of noon. I obſerved again at a quarter after four P. M. and found the loſs, in 9 hours apparent time, to be 40 ſeconds. Allowing this rate from 4 A. M. to 7 and a quarter, and the loſs in that time will be 16 ſeconds, giving watch ſlow for apparent time, 2 hours, 18 minutes, 30 ſeconds, at the time of obſervation, and this is the quantity here allowed. Planet rather near the horizon.

The Variation of the Compaſs, obſerved by the Sun's Azimuth. N.B. Both the Altitudes and Azimuth were taken with the Theodolite.

1792		Place.	A. or P. M.	Altitude.			Azimuth.			Variation.			Mean.		
				°	′	″	°	′	″				°	′	″
	Feb. 23	Baad	P	22	39	0	116	2	0 E	1	8	0 E			
	May 1	Oujein	A	11	25	53	78	8	0	0	2	0 E			
1796	2	Ditto	A	14	4	45	79	34	0	0	41	0 W	0	19	30 W
	April 9	Futtehgurgh	P	1	20	0	82	20	0	1	37	0 E			
	12	Ditto	A	22	30	57	90	19	0						
				23	20	57	89	52	0	1	47	27 E	1	42	13 E
				23	54	0	89	33	0						

1796, April 15, at Futtegurgh; obſerved the following diſtances of the Moon from Aldebaran and Spica.

Time by Watch.			Diſtant Moon and Aldebaran, nearest Limb.			Time by Watch.			Diſtant Moon and Spica, fartheſt Limb.		
H.	M.	S.	°	′	″	H.	M.	S.	°	′	″
6	43	22	61	10	51	8	1	58	72	54	30
	50	20		13	0		5	10		52	15
	57	5		15	15		8	46		51	15
7	3	45		18	0		12	2		49	45
	9	5		19	45		15	49		47	30
6	56	43	61	15	15	8	8	45	72	51	3

Alſo the following Altitudes for rectifying the Watch:

Time by Watch.			Altitude Aldebaran.				Time by Watch.			Altitude Spica.			
7	36	58	24	39	45	double angle	7	46	4	64	40	0	double angle
								48	33	64	36	30	
								51	9	65	34	15	

Error of the Sextant 2′ 15″ ſubtractive.

Reſults.	H.	M.	S.
Watch ſlow by Aldebaran	46	49	
by Spica		42	
		46	
		47	
Mean ſlow for Apparent Time	46	46	

	Apparent Time			Apparent. Moon.			Altitude. Star.			True diſtance: centre Moon and Star.			Longitude.		
	H.	M.	S.												
1ſt ſet Aldebar.	7	43	29	78	49	41	21	7	9	61	38	36	79	41	45
2d ſet Spica	8	55	31	64	20	48	35	54	52	72	14	54	80	7	45

Longitude of Futteghur by mean of both ſets 79 54 45.

NOTE

NOTE

Reſpecting the Inſect deſcribed in Page 948.

THIS inſect is the Meloë Chihorri of Linnæus. The following extract from a late publication will ſhew how much the gentlemen of the faculty are indebted to Captain Hardwicke for having pointed out to them ſo valuable an addition to their Materia Medica in this country.

" I ſhall only obſerve, that the Papilio, &c. are here extremely common, as is " likewiſe the Meloë Cichorii Linn. towards which Doctor Manni has endea- " voured to direct the attention of his countrymen. It remains from May to Au- " guſt, and eſpecially during June and July, in aſtoniſhing quantities, not only " upon the cichoreum but alſo upon the cerealis carduus and cynora cardunculus. " The common people have long uſed the liquor that diſtils from the inſect, when " the head is torn off, for the purpoſe of extirpating warts: and Mr. Caſimir " Sanſo has often employed it in lieu of the common bliſtering drug: but to ren- " der it more generally uſeful, Doctor Manni has made a variety of experiments, " and found that forty-five grains of the Meloë, and fifteen grains of Euphorbium " fermented with flour and common vinegar, and well mixed up, made a moſt " excellent bliſtering plaiſter. The proportions muſt be increaſed, or diminiſhed, " according to the age, ſex, and conſtitution of the perſon; but the above-men- " tioned quantity uſually produces a proper effect in thirteen or fourteen hours. " Theſe inſects are collected morning and evening, and put into a covered veſſel, " where they are kept until they are dead, when they are ſprinkled with ſtrong " vinegar, and expoſed to the hot ſun, until they become perfectly dry; after " which they are put into glaſs bottles, and carefully kept from humidity."

Travels to Naples by Charles Ulyſſes, of Salis Morſchlins.—Tranſlated from the German, by Anthony Aufrere, Eſq. London, 1795, p. 148.

NOTE

Referring to Page 344 of this Volume.

HAVING lately paſſed Benares, I took that opportunity of again examining the obſervatory, and aſcertained the circle which ſtands on the elevated terrace to the Eaſt (reſpecting the poſition of which I formerly ſpoke with ſome degree of heſitation) to be ſituated in a plane parallel to the equator.

W. HUNTER.

Sept. 28, 1797.

MEMBERS OF THE ASIATICK SOCIETY.

1797.

PATRONS.

The Honourable Sir JOHN SHORE, Baronet, Governor-General, &c. &c. &c.

Sir Alured Clarke, K.B. Commander in Chief, &c.
Peter Speke, Esq.
William Cowper, Esq.
} *Members of the Supreme Council.*

PRESIDENT, Sir JOHN SHORE, Baronet,
1ſt Vice-Preſident, John Fleming, Esq.
2d Vice-Preſident, John Herbert Harrington, Esq.

William Roxburgh, M.D.
James Dinwiddie, LL.D.
Francis Horſley, Esq.
William Coates Blaquiere, Esq.
William Hunter, Esq.
} *Committee of Papers, with the Preſident, Vice-Preſidents, and Secretary.*

Treaſurer, Henry Trail, Esq.
Secretary, Codrington Edmund Carrington, Esq.

Dr. James Anderſon
David Anderſon, Esq.
Lieut. Anderſon
Capt. Limington Baillie
William Baillie, Esq.
Francis Balfour, M.D.
George Hilaro Barlow, Esq.
Stephen Bayard, Esq.
John Bebb, Esq.
Rev. Dr. J. Bell
John Belli, Esq.
John Bentley, Esq.
Andrew Berry, M.D.
Robert Biddulph, Esq.
Robert Blake, Esq.
Sir Charles William Blunt, Bart.
Lieut. Blunt
R. H. Boddam, Esq.
Charles Boddam, Esq.
George Boyd, Esq.
John Briſtow, Esq.
Ralph Broome, Esq.
Rev. D. Brown
Francis Buchanan, M.D.
William Burroughs, Esq.
Adam Burt, Esq.
Capt. W. Burton
Alexander Campbell, M.D.
General John Carnac

Sir Robert Chambers, Knt.
Charles Chapman, Esq.
George F. Cherry, Esq.
Hon. John Cochrane
Henry Colebrooke, Esq.
Capt. Robert Colebrooke
Lieut. Col. John Collins
Capt. Hiram Cox
Burriſh Criſp, Esq.
John Criſp, Esq.
Thomas Daniel, Esq.
Samuel Davis, Esq.
William A. Devis, Esq.
John Dickens, Esq.
George Dowdiſwell, Esq.
Hon. Jonathan Duncan
N. B. Edmonſtone, Esq.
John Eliot, Esq.
John Farquhar, Esq.
William Farquharſon, Esq.
Nicholas Fontana, Esq.
H. P. Forſter. Esq.
Francis Fowke, Esq.
Capt. William Franklin
Capt. Charles Fraſer
Major Gen. John Fullarton
John Gilchriſt, Esq.
Francis Gladwin, Esq.
J. Goldingham, Esq.

Thomas

Thomas Graham, Eſq.
Charles Grant, Eſq.
James Grant, Eſq.
Lieut. Col. Chriſt. Green
Major Henry Haldane
Alexander Hamilton, Eſq.
James Hare, M.D.
Capt. John Hardwicke
Herbert Harris, Eſq.
Warren Haſtings, Eſq.
Edward Hay, Eſq.
Benjamin Heyne, M.D.
W. N. W. Hewett, Eſq.
Lieut. J. G. Hoare
Robert Horne, Eſq.
James Howiſon, Eſq.
Capt. Iſaac Humphries
Oſias Humphreys, Eſq.
Richard Johnſon, Eſq.
Ralph Irving, Eſq.
Sir John Kennaway, Bart.
Richard Kennaway, Eſq.
Major William Kirkpatrick
Lieut. Col. Alex. Kyd
Anthony Lambert, Eſq.
Thomas Law, Eſq.
Major Herbert Lloyd
Capt. Colin Macaulay
Lieut. Alexander Macdonald
Capt. Robert Macgregor
Capt. Colin Mackenzie
Francis Macnaghten, Eſq.
Col. Allen Macpherſon
Sir Charles Ware Malet, Bart.
William Marſden, Eſq.
Bartholomew Marſh, Eſq.
Charles Fuller Martyn, Eſq.
G. Mercer ———, Eſq.
Nathaniel Middleton, Eſq.
Edmund Morris, Eſq.
Sir John Murray, Bart.
Gore Ouſley, Eſq.
Lieut. Col. William Palmer
John David Paterſon, Eſq.
George Perry, Eſq.
John Rawlins, Eſq.
Capt. David Richardſon
Henry Richardſon, Eſq.
Lieut. Col. R. E. Roberts
James Robertſon, M.D.
Capt. G. Robertſon
Charles Rothman, Eſq.
Hon. Mr. Juſtice Royds
Alexander Ruſſel, Eſq.
Robert Saunders, Eſq.
Lieut. Col. William Scott
Major John Scott
Helenus Scott, M.D.
Lieut. Col. Richard Scott
John Shoolbred, Eſq.
Sir Robert Sloper, K. B.
Courtney Smith, Eſq.
James Stuart, Eſq.
Capt. Michael Symes
John Taylor, Eſq.
Iſaac Titſingh, Eſq.
Henry St. George Tucker, Eſq.
Capt. Sam. Turner
John Peter Wade, Eſq.
Capt. Francis Wilford
Charles Wilkins, Eſq.
John Lloyd Williams, Eſq.
John Zoffany, Eſq.

HONORARY MEMBERS.

M. Carpentier de Coſſigny
M. le Gentil
Rev. Dr. John
M. Henry J. Le Beck
Rev. Thomas Maurice
M. Volney.

Digitized with financial assistance from the
Government of Maharashtra
on 15 June, 2016